Technology Tips Guide

iTUNES & iCLOUD

547 TIPS FOR MASTERING APPLE'S MEDIA APP AND CLOUD SERVICE











Future

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iTUNES & iCLOUD

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iTUNES & iCLOUD

Welcome!

…to the ultimate guide to using iTunes and iCloud, helping you get the most from your Mac and iOS devices



Frankly, the name's some way behind the times now: as you'll know if you've ever used it, iTunes is not just about tunes! The super-app is your portal to a universe of entertainment and resources, including apps, podcasts and educational seminars as well as music, movies and TV shows.

Apple's end-to-end media ecosystem has proven to be phenomenally popular, and for good reason: nothing else makes it so easy to find, purchase, manage and then enjoy media content. And, with the advent of iCloud, Apple has made it simple not only to sync your media across all your computers and linked devices, but also to access and share your vital information and documents almost seamlessly, on any compatible device, wherever you are. It's a wonderful combination.

In this comprehensive guide, we'll help you master all the features and options in iTunes and iCloud. We'll show you how to get the best from the latest features in iTunes 12, then go further with its advanced options, share your music wirelessly, control it remotely from your iPhone or iPad, and much more. We'll take you step by step through all that iCloud has to offer, and show you how AirPlay can transform the way you enjoy your media. Whether you're using a Mac or a PC, playing your songs and bringing up documents on your computer or a mobile device, we'll help you make more of all your media and your important data – anywhere!

Alex Summersby, Editor
www.facebook.com/macformat

Why Technology Tips Guides?

Technology Tips Guides are designed to give you ideas and inspiration for exploring the devices or software you own in more detail. Whatever your skill level, each book aims to help you get the best from the products you love by giving you…

✓ A reference guide you can keep on your desk or next to your computer and consult time and time again when you want something new to do or need to solve a problem

✓ New skills you can take with you through life and apply at home or even in the workplace

✓ Maximum enjoyment from your hardware and software – from solving new problems to discovering new things to try, we'll show you the best ways to do everything

✓ Hours of fun thanks to the hundreds of ideas, hints and insider secrets you can use to truly master your device or software

✓ Advice you can take everywhere thanks to the free digital edition of this book – see page 146 for more details

How are we doing? Email **techbookseditor@futurenet.com** and let us know if we've lived up to our promises!

iTUNES & iCLOUD

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Jordskott
Horrible Histories
The Flash
Castle
The Following
Atlanta
Judge Geordie
Power
Miles from Tomorrowland
TATAU


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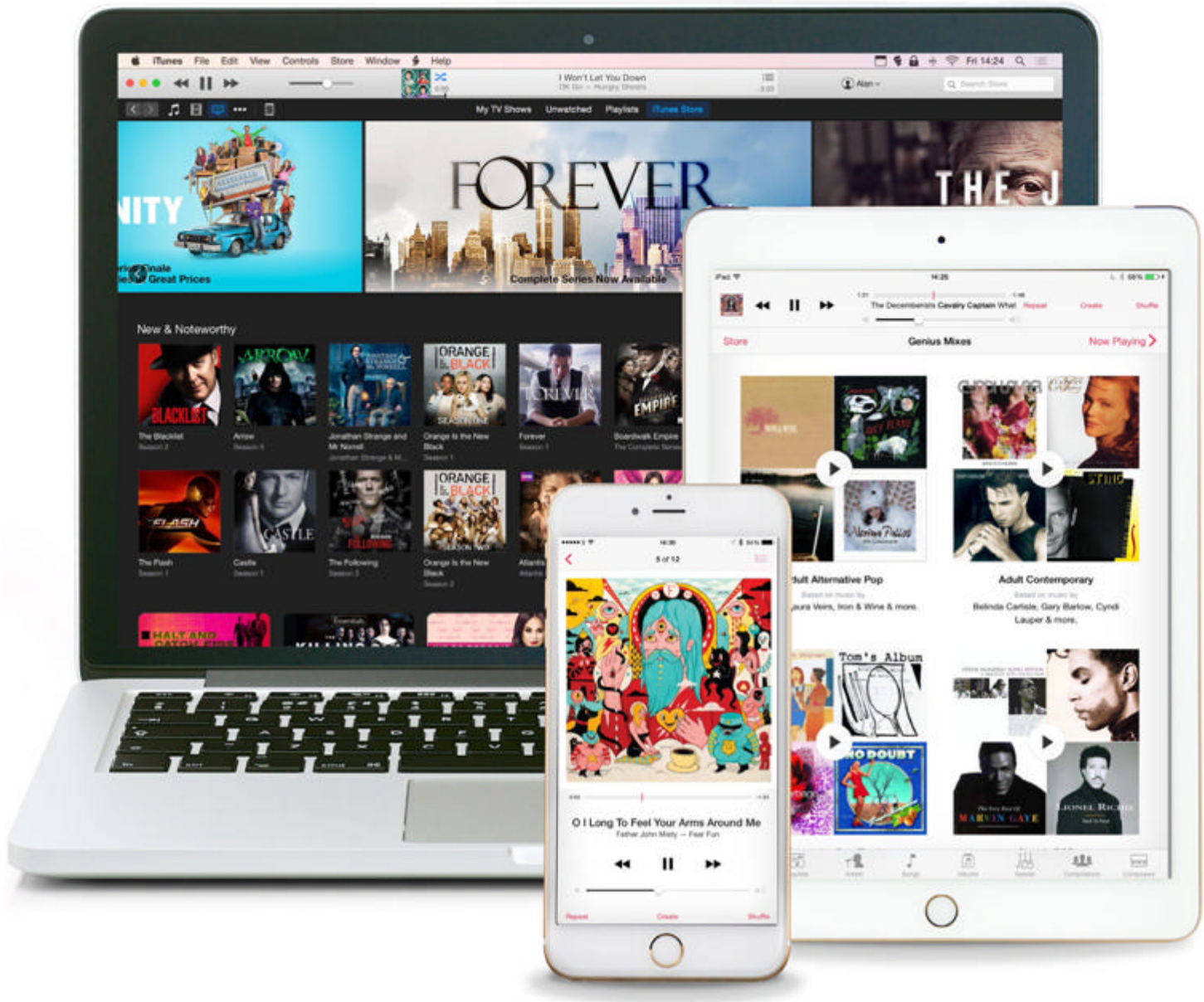
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Welcome to iTunes 12

iTunes is at the heart of your digital life, and it just gets better and better

The iTunes app started as a simple digital jukebox but has taken on more and more roles. For many years now iTunes has been at the heart of music and media management for both the Mac and iOS devices such as the iPod touch, iPhone and iPad (and it's also available for Windows, incidentally). If you're new to iTunes, you might not be aware of exactly how much it can do. It's not just a music and video player and organiser: with it, you can sync your music and data to and from a mobile device such as an iPhone, browse and buy new music or video from the iTunes Store, and browse and buy apps for both the Mac itself and your iOS device. In fact, when it comes to moving data between your computer and these portable devices, iTunes is the gateway through which everything has to pass.

That's not all

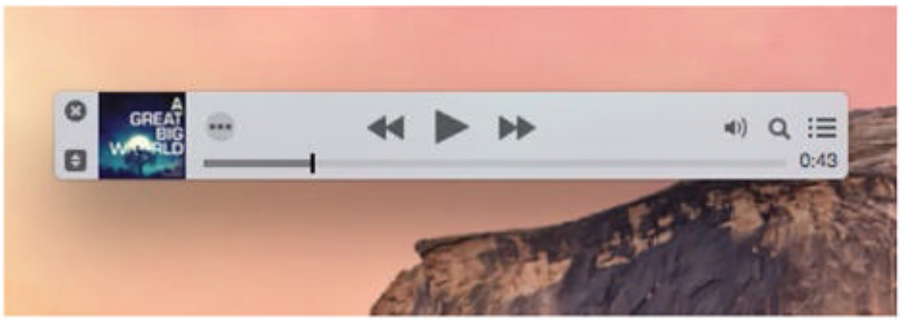
Beyond that, you can share media over a wireless (or wired) network; stream music to audio equipment directly without the need for a computer at all; create automatic playlists of songs based on any criteria you set; listen to internet radio stations; access your media in the 'cloud' (that is, via online servers); and even create your own compilation CDs.

Finally, there's iTunes Match, which essentially enables you to host your entire music collection on Apple's servers (for a fee), so it's all accessible from anywhere (see page 18 for more about this and other features available via the cloud).

To start, let's look at what's new in iTunes 12 or might be unfamiliar if you've used earlier versions, before we turn to guiding you through all the features in depth and showing you how to get the best from iTunes.

What's new and hot in iTunes 12?

Find your way around the latest version of Apple's media management and player app



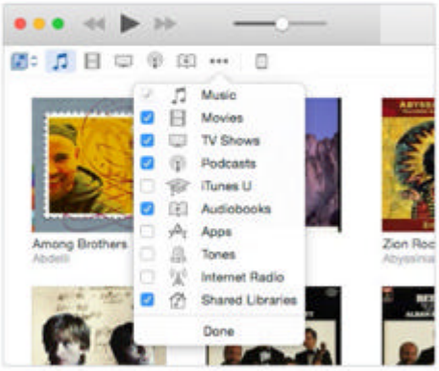
According to Apple, iTunes 12 includes design and performance improvements that make iTunes easier to use. It's not as radical a redesign as iTunes 11, but several important details have changed, moved or been removed.

To ensure you're using the latest version, the easiest thing is to launch iTunes, then go to the iTunes menu and select Check for Updates.

Switch media types – music, movies, TV shows, and so on – using icons at the top left of the iTunes window, just beneath the play controls. You use the same controls to view different media types in the iTunes Store.

TIP: By default, there are icons only for music, movies and TV shows; other types of media are accessible by clicking the More button (with an ellipsis or three dots). If you use another media type regularly and want it to be permanently available, click Edit at the foot of the drop-down menu, and click the tickbox next to the media type you want. To remove any, untick them – only Music cannot be removed. When you're happy, click Done.

TIP: You can also switch media types using keyboard shortcuts – hold ⌘ (Mac) or [Ctrl] (Windows) and press the number 1 for Music, 2 for Movies, and so on. Alternatively, use the View menu – some options will be moved to the More submenu, reflecting your personal configuration.



Add the media types you want to iTunes' top bar for one-click access. If Home Sharing is enabled, the button at the far left makes it possible to access shared libraries and play their content as if it were on your own computer.

Master the MiniPlayer

To access the MiniPlayer, click on the album cover art or on the MiniPlayer icon that appears in the left-hand corner of the iTunes status panel (the 'now playing' display) where cover art normally appears. Or just choose Window > Switch to MiniPlayer. You can drag the right or left edge of the MiniPlayer to make it even smaller, as well as hide or show the Up Next track list, album cover art, and other elements.

TOP TIP
MiniPlayer has several different views, which you can swap between by clicking the switch icons at its left and right.

Sorting: click the pop-up menu at the far right of the icon bar (just beneath the search box) to set various view options – whether you view Songs, Albums, Artists, Composers or Genres; then the sorting order within this view; and whether your Recently Added items are shown at the top of the display.

Recently Added: By default, iTunes puts recently added albums, movies, or TV shows at the top of your library, so that you can always find something new to play. In the view pop-up menu at the top-right of the window you can change what iTunes includes in Recently Added (This Month, Last 3 Months, Last 6 Months or Last Year) or turn it off completely by simply unticking Show Recently Added.

Sidebar and playlists: In iTunes 12, you can display a navigation sidebar only by displaying your playlists. Click the media type, then click Playlists in the centre of the icon bar.

Contextual controls: In Album view, click an album to view its contents. Move the pointer over an item and relevant controls will appear – play or shuffle in the case of an album, for example; in the case of an album or a track, click the three-dots More icon for the option to play it next, add it to Up Next and others. Right-click on a song, movie or other item for more options. Among these is a redesigned Get Info window, which displays various kinds of data about the item and enables you to edit much of it.

Managing iOS devices: Connect your iPhone, iPad or iPod to your computer, then click the icon that appears next to the More button in the top-left. (If there's more than one device connected, select the one you want from the list that pops open.) You can now add content to the device from your library, manage different types of media on it, and much more – see page 46.

TIP: With the sidebar showing, you can drag-and-drop items to your device, provided you've enabled Manual Management on that device. If it's not showing, simply start dragging an item and a mini-sidebar pops open, enabling you to drop items on to your device.

Up Next: Click the list icon at the right of the 'now playing' pane to see what's queued to play next. Click the X by an item's name to remove it from the list. Change the play order by dragging items up or down the list, or click the More icon to the right of an item and select Play Next.

Get to know iTunes 12

Find your way around the hub of your music and media library

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
OS X 10.10, iTunes 12; an Apple ID; optionally a CD drive

When it comes to organising your music, movies, TV shows and other media, iTunes provides an easy way to build up your collection, and powerful features to help decide what music you hear. You can manually build playlists, but iTunes also enables you to specify a few criteria – say, tracks from the '90s that you've rated four or five stars – and it'll pick out matching tracks in an instant, even from a library that contains thousands of items, to save you the bother of doing it yourself.

Audio CDs can be imported into your library so you don't have to reach for a disc to play an album

You can buy from the iTunes Store from within iTunes. There's a free 'Single of the Week' on the store's front page, but to buy other things you'll need to add a payment method – such as your bank card or funds from an iTunes gift card, available in many supermarkets.

Audio CDs can be imported into your library so you don't have to reach for a disc to play an album. With many recent Macs, you'll need to add an inexpensive external CD drive (generally less than £30).

iTunes is also how you copy music and other media from your library to an iPod or other iOS device, so you can enjoy it even when you're away from your Mac. Here's how to get around in iTunes and find its essential features.

QUICK LOOK
ITUNES' LAYOUT

Kinds of media

1 Choose the kind of media you want to view. CDs, iPods and other iOS devices appear here when connected. Click the ellipsis (. . .) for more types, then click Edit to set what's shown here by default.

Different views

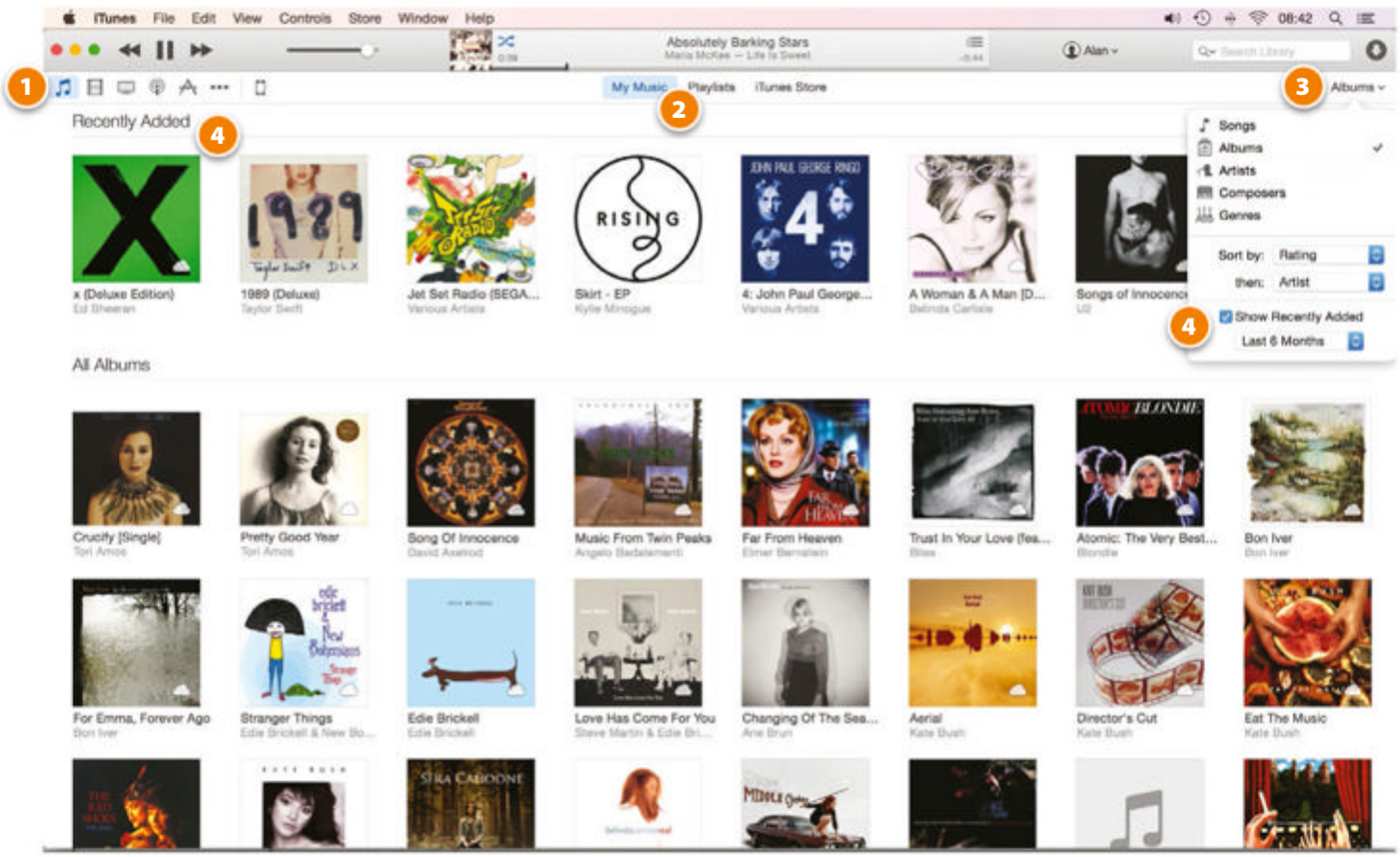
2 Choose the way in which the chosen media kind is presented. Each one includes a link to browse more of its type in the iTunes Store.

Reorganise

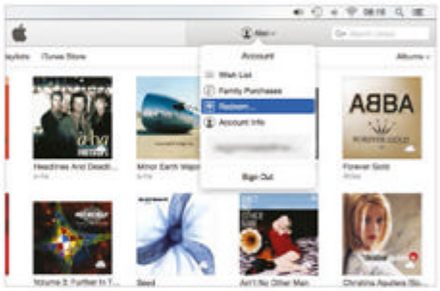
3 Change how what you're viewing is sorted, such as by artist or year for music – options vary between media, and some add an alphabetical index on the left-hand side.

Recent media

4 Some views show this shortcut to save you searching for newly added media. Use the drop-down or View > Recently Added to set how far back its list goes.

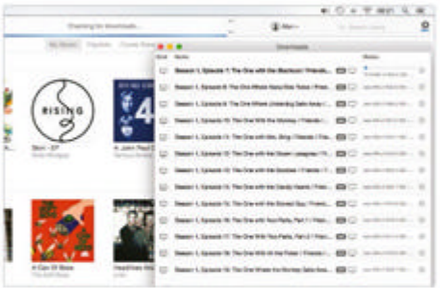


HOW TO | USE iTUNES' ESSENTIAL FEATURES



1 Buy a track or album

Ensure you've signed into the iTunes Store: click Sign In (left of the search bar) and provide your Apple ID details. With a bank card or credit from an iTunes gift card added to your account, find an item you want, click its price and enter your ID's password to buy it.



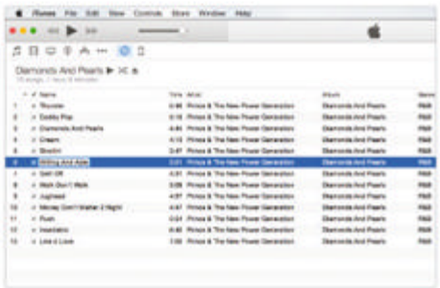
2 Monitor downloads

Small items such as music will download quickly, but video can take a while. Click the button that appears to the right of the search bar to monitor progress, to pause downloads, and to drag items up and down in the queue to change the order in which they're downloaded.



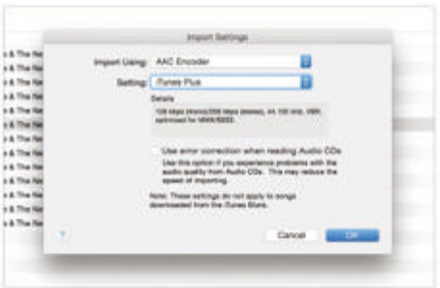
3 Automatic downloads

Go to iTunes > Preferences and click Store in the new window to choose which of the media that you purchase on, say, your iPhone is automatically downloaded to your Mac. In iOS, use Settings > iTunes & App Store to make those choices about purchases made on your Mac.



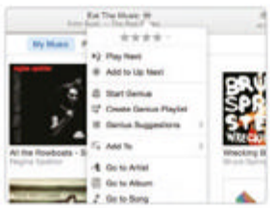
4 Set up CD import

Insert an audio CD in your Mac's internal or external CD drive and iTunes will look up track names online. If they can't be found, or you want to make changes, click once on a row to select it, and again on a detail to edit it – or right-click and choose Get Info to edit all details.



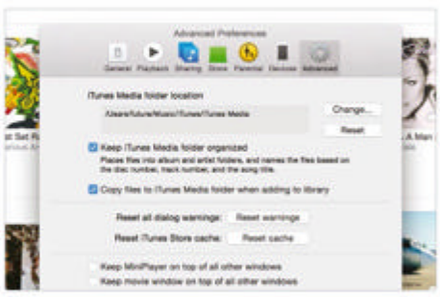
5 Import a CD

If the CD's details weren't found online, click Options and submit yours to save others time if they import the same disc. Click Import CD and choose a format and quality – AAC and iTunes Plus are the same quality as tracks from the iTunes Store. Click OK to import the CD.



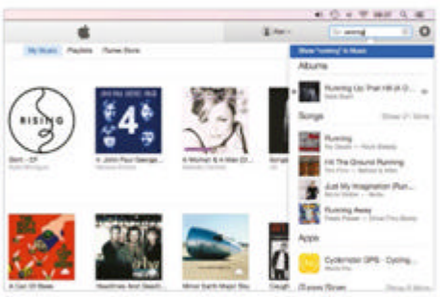
RATE SONGS

Move the pointer over a track, then click one of the five dots to its right to rate it. To rate what's currently playing, roll over its name at the top of iTunes and click the ellipsis.



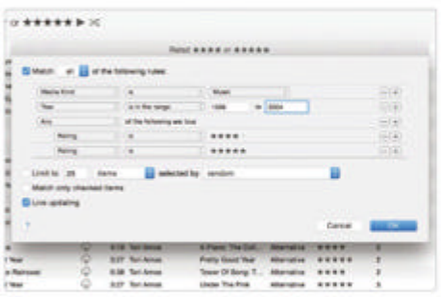
6 Other digital music

AAC and MP3 files from other stores with no copy protection can be imported by dragging and dropping them onto the iTunes icon in the Dock. They'll be copied to your library folder, provided the respective box is ticked in iTunes > Preferences > Advanced.



7 Search your library

Click and type in the search bar to find things in your library. Results are listed by kind. Click one to view it, or double-click to play it. Click the magnifying glass and untick Search Entire Library; only results of your chosen format then appear in the main window as you type.



8 Make a playlist

Choose File > New > Playlist to create a playlist. Right-click a track and choose Add to Playlist, or drag it and then drop it onto a playlist in the panel that slides in. The contents of Smart Playlists are generated when you specify criteria to match, such as a range of years and ratings.

Take control of iTunes 12

Take iTunes further: let it mix your music and share your media

SKILL LEVEL
Anyone can do it

IT WILL TAKE
At least 15 minutes

YOU'LL NEED
OS X 10.10, iTunes 12; optionally iPhone, iPad or iPod touch

Now that you know the basics of playing media in iTunes, you can explore its advanced features. You don't actually need to build playlists by hand, or even specify criteria for tracks you want to hear by creating a Smart Playlist. Instead, you can pick a single track or genre from your library and tell iTunes to generate a playlist or a continuous mix based on that one piece of information alone.

If you're playing DJ at a party, you'll definitely want to master the Up Next feature, which enables you to put songs in a queue and make adjustments to the order of playback on the fly.

iTunes takes up a lot of space on the desktop, so there's a MiniPlayer mode that provides all of the essential features for controlling playback in a much smaller window that's ideal for keeping open at the side of your desktop.

Got an iPod or other iOS device that you want to copy media to? You can copy it from iTunes to the device. If you've got too much music to fit on your device, though, you'll want to investigate iTunes Match, which makes your music available to stream over the internet – even if you bought it on CD originally. You can also stream music and other media between devices on your home network, set up your family's iTunes Store accounts to download each other's purchases on your personal devices, and manage your kids' spending. Let's see how to how to do all this from iTunes alone.



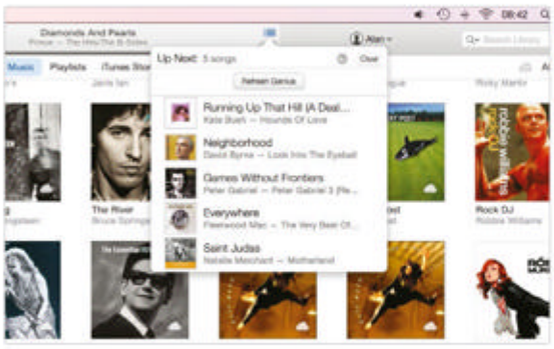
Intelligent features enable iTunes to serve up great mixes of music with minimal effort.

A MiniPlayer mode provides all of the essential features for controlling playback in a smaller window

HOW TO | GET MORE OUT OF iTUNES

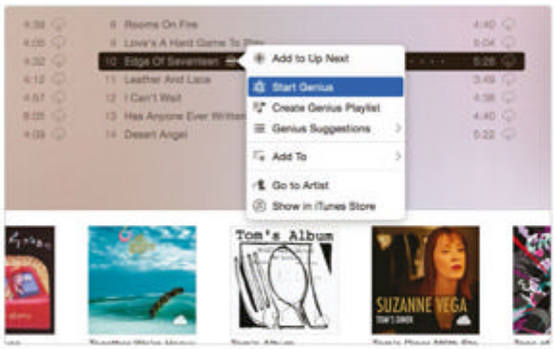
REMOTE CONTROL

Apple's Remote app (bit.ly/iosremote) enables you to browse your Mac's iTunes library and control what's playing using an iPhone, iPod touch or iPad that's on the same network as your Mac.



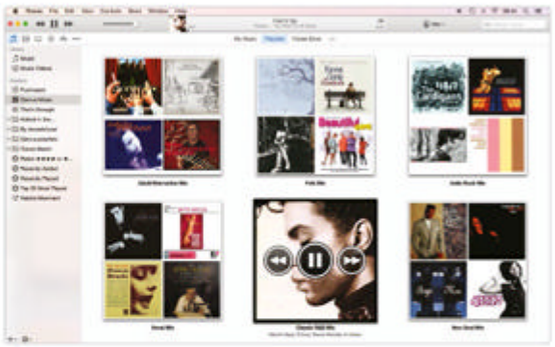
1 Choose what plays next

To see what's up next, click the list icon at the right of the playback monitor. To add a track, right-click it and select Add to Up Next, or Play Next to prioritise it. Or, drag and drop a track or several onto the playback monitor to add them to Up Next. Click the clock icon to see previously played tracks.



2 Genius Playlists

Choose Store > Turn On Genius to send details of your library and listening habits to Apple. It uses such details from millions of people to create Genius Playlists. After data is received from Apple, right-click a track and choose Start Genius to listen to tracks thought to go well together.



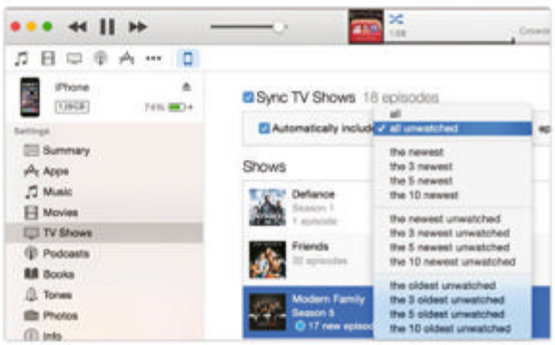
3 Genius Mixes

Genius data is also used to create continuous, genre-themed mixes. Select the Playlists view, and choose Genius Mixes on the left. Move the pointer over a mix and double-click to play it. Click a mix's name once, and then again to rename it. Right-click a mix for an option to remove it.



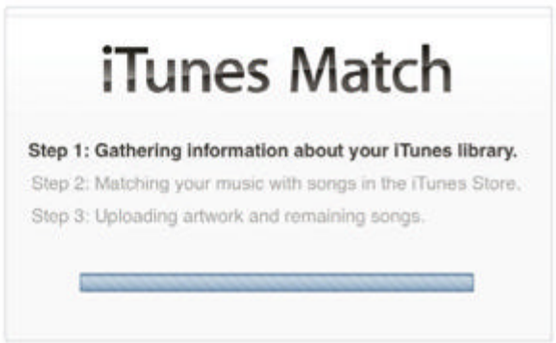
4 The MiniPlayer

Click the current track's artwork in the playback monitor to switch from the large window to the MiniPlayer, which fits neatly at the side or corner of the desktop. Search for artists, albums and songs by pressing ⌘+F and typing, and add things to Up Next by clicking the + at their left side.



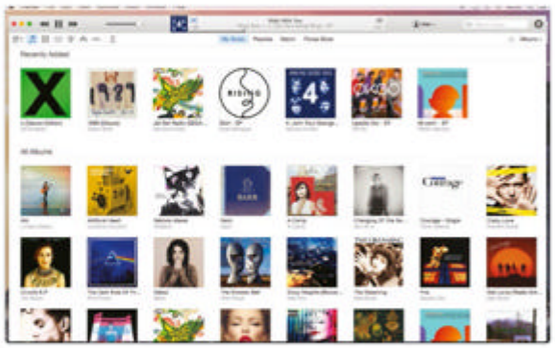
5 Copy media to your device

Connect your iPod or iOS device and click its icon in iTunes (top left). In the sidebar this reveals, click a category and choose what to copy. Click the Apply button, then Sync. Or, under Summary, choose to manually manage media, then drag items and drop them onto your device in the sidebar.



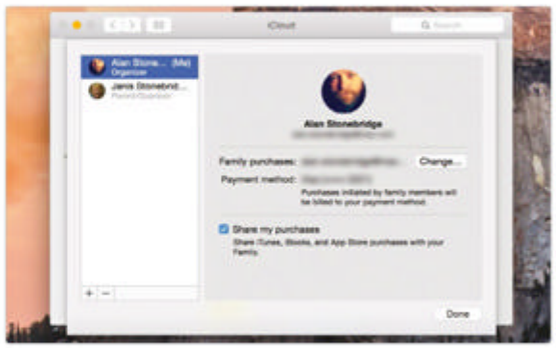
6 iTunes Match

For an annual subscription, this service matches music in your library, even tracks you added yourself, with items in the iTunes Store to make them available on all your devices. If a track can't be found in the store, then your original will be shared. Choose Store > Turn On iTunes Match to learn more.



7 Home Sharing

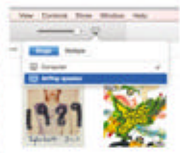
Home Sharing enables media from your library to be streamed to up to four more Macs and iOS devices over your home network. On a Mac, choose File > Home Sharing > Turn On… and enter your Apple ID. In iOS, go to Settings > Music, scroll down and enter the same details at the bottom.



8 Family Sharing

This groups up to six Apple IDs to share a payment method and each other's purchases. The family organiser can also approve a child's purchase requests. From a Mac signed into the iCloud account that will be the organiser, get started in System Preferences > iCloud > Set Up Family.

AIRPLAY



iTunes can stream music to one or more speakers using AirPlay. With such a speaker on your network, click the AirPlay icon that appears to the right of iTunes' playback controls to choose which speakers in your home the music is played on.

JARGON BUSTER

Bit rate

The higher a song's bit rate (quality), the greater its file size. If space is short on your iOS device, you can sync at a lower bit rate. In the device's Summary in iTunes, click 'Convert higher bit rate songs…' and select a lower value.

Your Apple ID

From buying songs to using Apple's online services, this is your master key

Whether you simply want to get a song or movie from iTunes, find some new apps for your Mac or iOS device, buy something from Apple's online store or make use of Apple's various cloud-based services, you'll need an Apple ID.

At its basic level, an Apple ID is your unique user name in the Apple world, identifying who you are so you don't need to keep re-entering details such as your email, your physical address and a payment method every time you want to download or buy something.

Your Apple ID is also your key to all kinds of handy features, including the ability to back up your vital data automatically and sync your Calendar events, Contacts and Safari bookmarks across multiple devices and computers – which is particularly useful if you use an iPhone, iPad or iPod in addition to a Mac or Windows PC. An Apple ID is required to use other Apple services including the iMessage multimedia message service, FaceTime video calling, and Game Center, which enables you to challenge other Apple users to play compatible games, compare your scores and achievements, and more.

Once you activate Apple's free iCloud service (see page 18), all the apps, music, movies and books you've bought on one computer or device are automatically available to download for free on every other device linked to the same Apple ID. Your photos, documents and other data become available on any of your devices or computers. Using Family Sharing via a Mac (see page 67) or an iOS device (page 68), you can opt to make your purchases available to members of your family by adding their Apple IDs to a family group. And if you're using the recent versions of OS X and iOS (at least OS X 10.10 Yosemite and iOS 8), you can start a task such as composing an email on your iPhone, and then seamlessly continue the same email on your Mac. You can even use your computer (or your iPad linked to the same Apple ID) to pick up messages and phone calls sent to your iPhone.



Register your computers and devices to the same Apple ID and you can sync your bookmarks across all of them, and even see what tabs you have open in Safari on your other devices.

Of course, you don't have to be using an iPhone and an iPad in addition to a Mac. If you bought a Mac or iOS device (or anything else) from the online Apple Store, or you've ever downloaded anything from iTunes or the App Store, then you'll already have an Apple ID. If not, you can create one as part of the process of setting up an iOS device or Mac, or at any of the many points where you're invited to sign in to access services such as iCloud, or you can visit the website at appleid.apple.com and click the Create an Apple ID button on the homepage. If you're not sure whether you already have an Apple ID or you've forgotten your password, the same site will be able to help you out.

Note that the one thing you can't do on this site is add or alter any payment details and other account settings. For this, you need to sign in to the iTunes Store or App Store on your Mac or iOS device – see opposite.

Managing your Apple ID

It's possible to use one ID for your Store purchases and a different ID for iCloud – in fact, whenever you create an account for an Apple service, such as iCloud or the App Store, you're creating an Apple ID. However, sticking to one ID makes life much simpler – it means your song purchases will be available on any device via iTunes in the Cloud, for a start. That said, creating a separate Apple ID can be ideal if you're giving your iPad to your children to use, for example, and want them to be able to install free apps but not paid-for ones: you can set up a new Apple ID for them with no payment card associated with it – see opposite.

Be aware, though, that this does *not* work the same way as having multiple user accounts on your Mac or PC and switching between them



Your Apple ID enables you to buy things from iTunes, the App Store, the iBook Store and the online Apple Store. It also enables you to have anything you purchase on one device automatically download to all the other devices linked to the same Apple ID, or you can add items manually if you prefer.

– in particular, note that once you sign in to an iTunes Store account, you can't switch the Store to another Apple ID on the same computer or device for 90 days – but it does mean you can rest assured that your kids won't be able to run up a huge bill on the iTunes Store or by using In-App Purchases.

You can change your password or personal information whenever you like. It's also possible to change your main Apple ID at any time: you just need to sign out of all services that use your current Apple ID, and make sure you specify a valid email address for your new ID – you'll be sent a verification email, which you'll need to access in order to complete the process. The only catch is that you can't use an iCloud email address (@icloud.com, @me.com, or @mac.com), because this is already an Apple ID itself.

The other thing you can't do is merge several Apple IDs into one, which can be a pain if, say, you bought something on iTunes using an older ID. You'll need to keep using the old ID to access any music, movies, apps or other items that were purchased using that ID. It's not possible to transfer purchases from one Apple ID to another, although you can share content over your home network (see page 64) or with members of your family using Family Sharing (see page 67).

If your old Apple ID is linked to an email address that you no longer use, you can change it to one you do use (unless it's an iCloud email address, in which case you need to add the valid email address as an *additional* email address).

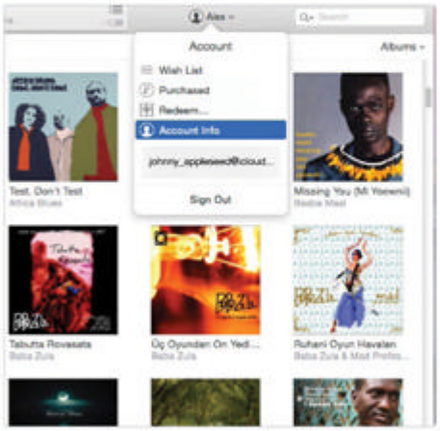
An Apple ID is required for more and more features and services on your Mac, iOS devices and online. Got a query or want to know more? A good place to start is www.apple.com/support/appleid

HOW TO | CREATE AND MANAGE AN APPLE ID – OR MORE THAN ONE...



1 Creating an Apple ID

You can set up an Apple ID when you set up your iOS device or Mac, when you want to buy something from iTunes or download from the App Store, or by using a browser and going direct to appleid.apple.com. Click 'Create an Apple ID' and fill in the details, making sure to include a valid email address, then click Create Apple ID. Next check that email account for a message from Apple. Open the message, click Verify Now and follow the instructions to finish setting up your Apple ID.



2 Settings and options

You can change your Apple ID name, password or billing information at any time. On your Mac, open iTunes and go to Store > View Account, or click your name in the top bar and select Account Info. Enter your password to view your Account Information. Click Edit next to the information or setting you want to change. On your iOS device, tap Settings > iTunes & App Store, and tap your Apple ID on the next screen. Note that you must now use the site in step 1 to change security questions and other details.



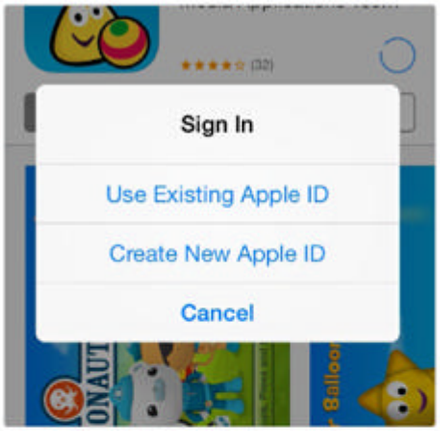
3 Apple IDs for children

Children under 13 can't create their own Apple ID, but you can create one for them using Family Sharing on a Mac or iOS device (see page 67). This Apple ID enables them to access music and other content you share with them (which you can limit by setting Restrictions on an iOS device or Parental Controls on OS X and iTunes), as well as use iCloud and other Apple services. Ask to Buy is enabled by default for under-13s, though you can turn it off if you wish. For more, see support.apple.com/en-gb/HT201084.



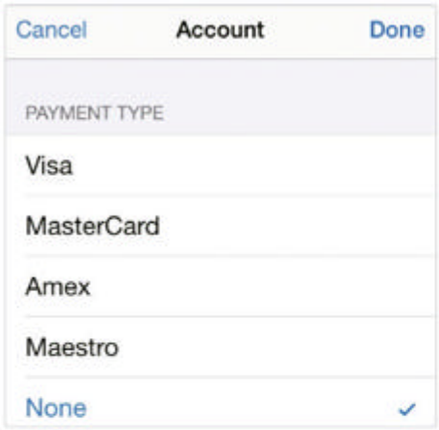
4 Additional Apple IDs

If you have older children (aged 13 or older) and want to let them download free content on their own but not paid content, you can set up an additional Apple ID with no payment card attached. You can do this in advance at appleid.apple.com, or in the next step. Bearing in mind that you can't swap Apple IDs on the same device within 90 days, use the device they'll be using and go to the App Store. Pick a free app – any will do, provided it's not already installed. Tap Free, then Install.



5 Sign in or create new

You'll now be asked to sign in. If you've already created the additional Apple ID, tap Use Existing Apple ID and enter the name of the kids' account. If not, tap Create New Apple ID and go through the steps to set one up now. Tap Review, then Next, agree to the terms and conditions, and then enter your payment card details. (Don't worry – this is just temporary! We'll remove this information in the next step.) After the app has finished downloading, tap the back arrow at top left.



6 Unlink payment card

On the App Store's main Featured page, scroll down to the bottom and tap Apple ID > View Apple ID. Verify this is the kids' account and not yours, then sign in, tap Payment Information and under 'Payment Type' select None. Now tap Done, then Done again on the next screen. Now when your kids visit the iTunes Store, App Store or iBook Store with this account they'll be able to download free apps or media (subject to any age ratings you set using Restrictions) but will have to enter the card details for paid-for items.

iTunes in the Cloud

iTunes works better than ever thanks to online features

SKILL LEVEL
Anyone can do it

IT WILL TAKE
Depends on how much data you have

YOU'LL NEED
iTunes 12, an Apple ID

Apple's iCloud is an online file storage, syncing and streaming system that is increasingly used to co-ordinate everything you do on your Mac and iOS devices. Every Apple ID gets 5GB of free storage space for backup and documents, and it's also used to synchronise your iTunes purchases so that they are available across every device signed in with your ID. iTunes 12 works with iCloud in a number of ways. Your previous purchases now appear as part of your library, whereas you once had to dig through the Purchased section of the iTunes Store to find them.

You may have to authorise your Mac with Apple to enable this. If you're not using iTunes Match, you will be able to tell which albums or songs are previous purchases because they will appear with a small cloud icon in the corner of their artwork. If you are using iTunes Match, many more items will display this icon. For convenience when your computer is offline, you can go to iTunes' View menu to choose to hide music that's in the cloud so that you only see what is available locally.

Items stored remotely on Apple's servers is displayed with a cloud icon. Click on these icons download a copy to your local library.



iTunes Match analyses your music library, sends the results to Apple and uploads any music that isn't already in the iTunes Music Store.

Everything you've ever bought with your Apple ID can be redownloaded at any time for free, even if you have deleted the files from your devices. Another nice feature of iTunes is playback syncing for movies. If you watch a movie on one device then pick up another, the movie will start playing from the same place you left off. This works for content bought from Apple's store, and also for any home movies you add to your iTunes library and edit their metadata to turn on the 'Remember playback position' setting.



Activate iTunes Match on your iOS devices and you are able to play or download any music from your library over a Wi-Fi or cellular connection.



Got a match?

On the subject of iTunes Match, for just £21.99 a year Apple will effectively host your entire music collection on its servers. Set up a subscription by choosing Store > Turn on iTunes Match in iTunes' menu and the app will analyse your music library and send the results to Apple. It then makes music that's also on sale in the iTunes Store available on devices that are signed in with your your Apple ID, without having to sync them from your computer.

Any music not found in the iTunes Store will be uploaded, and any playlists on your Mac also become available on your other devices. Music can be downloaded in high quality to your Mac or your iOS devices. What iTunes Match essentially does is references music that's already on Apple's and when you go to play a track from your library, you play that track instead of your original copy. iTunes periodically updates Match to make new additions to your library available on other devices. It's an excellent way of accessing your music collection from any iOS device or your



Items you purchase from the iTunes Store appear as part of your local library by default, even if you haven't yet downloaded them. Turning on Recently Added in a view's options makes them even easier to find.

Apple TV, over a wireless or a cellular connection if you're away from home.

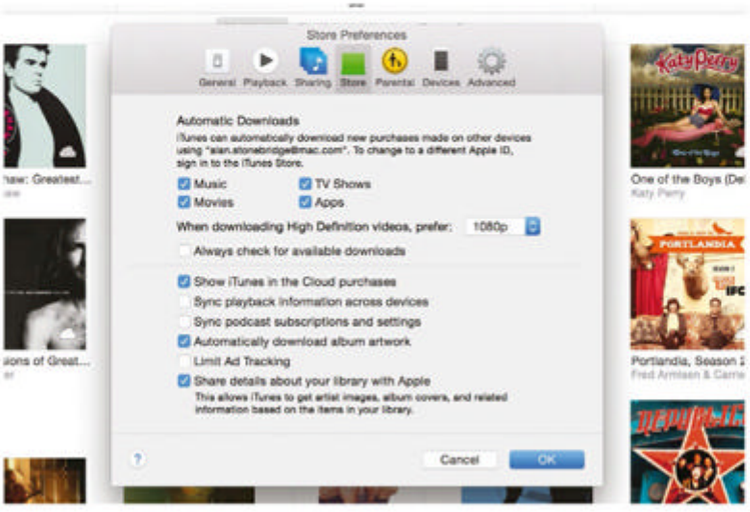
Get creative with your iTunes Match library

If you're crafty, there's a clever trick you can use with iTunes Match that is great for freeing up space on your Mac. Activate iTunes Match using your main iTunes library and wait for the matching to complete. Then create a new iTunes library locally by holding down the ⌥ key when opening the app. Turn on iTunes Match in this second blank library too using the same Apple ID. You get up to ten device authorisations per ID. All the music from your other library will be available to stream in the new library, but you can disconnect the original library containing gigabytes of music (or more accurately disconnect whatever drive holds the media files), since it's not being played from there. Remember to add new music to the old library, match and then stream it from the new one and you have effectively offloaded your library into the cloud. Remember this doesn't work for movies, so consider adding them to the new library and storing them locally.

Automatic downloads

Another way in which iTunes and iCloud integrate is when it comes to automatic downloads. First start by going into Preferences in iTunes and click Store; there you can switch on automatic downloading of music, apps and books so that when you buy something on another device that's signed in with the same Apple ID, it will automatically download to your Mac's iTunes library so that you have a local copy.

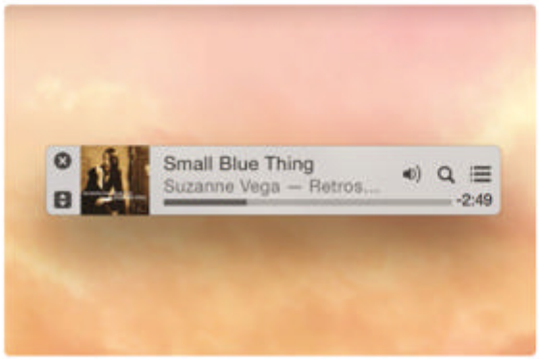
If you wish, this window also lets you set up automatic downloading of pre-ordered purchases by turning on 'Always check for available downloads'. There's also a setting here that determines the quality at which HD video content is downloaded – 1080p or, if you want to save some storage space, 720p. These options (except for video content) are also available on your iOS devices in Settings > iTunes & App Store. So, if you decide not to subscribe to iTunes Match, this ensures you can listen to your latest music purchases on your iPhone or iPad.



iTunes can be set to automatically download purchases made on any device on which you're signed into the iTunes and App Stores using your Apple ID. Review these settings in iTunes > Preferences > Store.

Save some desktop space

Although iTunes' window can be made smaller, it still takes up a lot of space. Thankfully the app features a more compact mode called the MiniPlayer, which you can switch to in the app's Window menu. This defaults to a medium-sized view that shows cover art and, when you move the pointer over it, playback controls. Clicking the icon below the MiniPlayer's close button shrinks it down to an even smaller size that you can tuck away in a corner of the desktop. At either size, the MiniPlayer provides the ability to search for items in your library and add them to the queueing system, Up Next, without switching back to the full-sized window.



Switching to the MiniPlayer reduces the desktop space that's taken up by iTunes, yet it still provides vital features like searching for and queuing tracks.

Everything you buy with your Apple ID can be re-downloaded for free even if you deleted the files from your devices

Discover iTunes U

Find support materials or whole courses of study on your Mac or iOS device

We've mentioned that iTunes is about much more than just entertainment. One distinct area in which it has carved out a niche is education: you can find a huge range of free courses and educational materials in iTunes U, which is a dedicated part of the iTunes Store on your Mac or PC but accessed through a separate app on your iOS device.

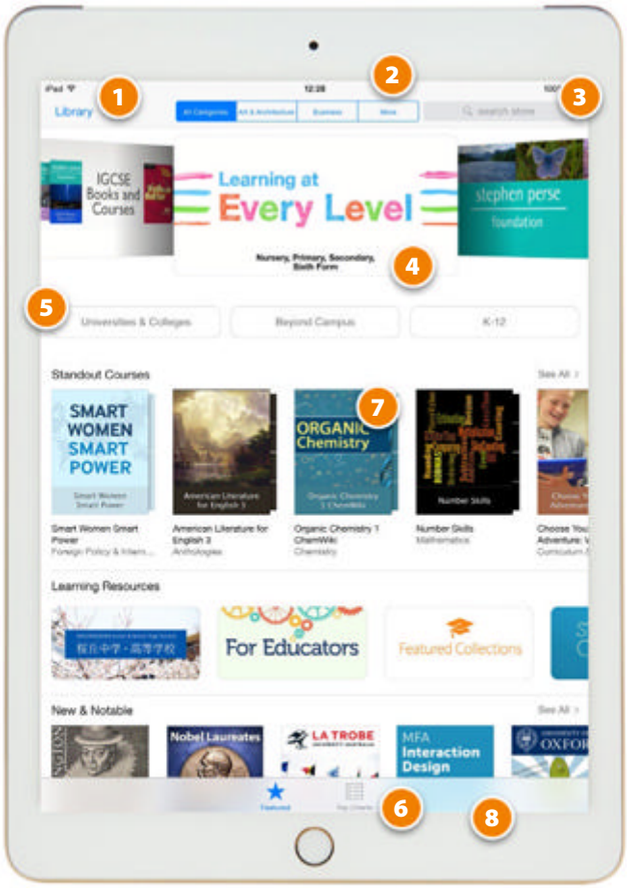
We'll explore the iTunes Store overleaf, but let's take a quick look at this distinct resource here. On your computer, you can click the More button at the top-left of the iTunes window and select iTunes U. The iTunes Store link in the middle of the top bar will now take you to the section of the Store devoted to learning materials. The left-hand link in the middle section of the top bar becomes 'My iTunes U', and clicking this gives you access to courses you've joined and the related reference material. On your iOS device, the principle is the same but you access the same section of the iTunes Store using the separate iTunes U app, and tap Library at the top-left of the screen to view and access your own saved courses and materials. These, along with your own notes and annotations, are synced via iCloud, so they're up-to-date whether you access them using your computer at home or your iPad on the road.

Learning wherever you are

Set up in 2007, iTunes U was designed as a way for academic institutions to share content with their official students, but also to make those courses available worldwide for free. There are more than half a million tutorials, videos, books and other study materials ready to download at no cost, from a range of institutions, including universities and high schools around the globe, plus museums, libraries and more.

Note that there are some courses of study restricted to enrolled members of the particular institution offering them, or otherwise limited in availability. When you click or tap on the course you're interested in, you'll see a course outline and other details, including any such restrictions.

VISUAL GUIDE | USING iTUNES U ON YOUR iPAD



Find free courses and educational content straight from your iPad

Library
1 Tap the top left button to return to your personal library of course materials that you've downloaded, either on this device or synced via iCloud across all your devices.

Genres
2 Tap a tab to view the available courses by category, so you can look through the options that relate to the subject you're interested in.

Search
3 Tap in the search bar (top right) and start typing to directly search the extensive catalogue by keyword.

Featured view
4 Check out promoted courses, see the most recent additions or find the most popular courses by scrolling down to the 'What's Hot' section.

Browse institutions
5 Tap a button to look for specific courses either by level of study or by institution within a level. Swipe to the left to see more.

Top Charts
6 Not sure what you're looking for? Tap the button at the foot of the screen to see the most popular courses and collections in order of popularity.

Subscribe
7 Found a course you like? Tap it to view its details, tap Subscribe, then Get Course, and the course will appear in your library. Tap it to open it, and you can tap Overview to read the course summary. Tap the Materials tab to see the supporting text, video or audio materials to go with the course.

Add Notes
8 In a course, the Notes tab at the bottom enables you to add your own course and book notes, which are synced to all your devices. A Posts tab gives you access to extra materials by other students that may give alternative views on parts of this course.



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* New app subscribers only

The iTunes Store

Your built-in source for music, movies and many other kinds of content

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
iTunes 12, an Apple ID, internet connection

Right at the heart of iTunes is the iTunes Store – your one-stop shop for purchasing, renting and sampling new music, films, TV shows, books, podcasts, apps and more! All you need is an Apple ID (see page 16), which you can set up when you first access the Store by clicking the iTunes Store link in the group in the middle of the top bar in iTunes' main window, just beneath the 'now playing' panel (which displays an Apple logo if there is nothing currently playing).

The iTunes Store is your one-stop shop for music, films, TV shows, books, apps, podcasts and more

The Store is easy enough to use, but it offers so much that it can initially seem confusing. To find different kinds of content, click the icons in the top left or select from the pop-up menu at the right-hand side just beneath the scrolling highlights bar. Alternatively, if you know what you want, type into the search box at the top-right.

Move your mouse pointer to different areas and you'll see scroll bars and other navigation options appear. In addition to clicking items or links within the Store, you can use the browser-style back and forward buttons at the top-left to navigate back and forth. To return to your own library of content, click 'My Music' (or equivalent) or 'Playlists' in the top bar.

QUICK LOOK
USING THE STORE

Navigation

1 Click iTunes Store in the top bar to go to the Store. Other links here change according to which section of the Store you're viewing (so it's 'My Movies' or 'My Apps' in place of 'My Music').

Other content

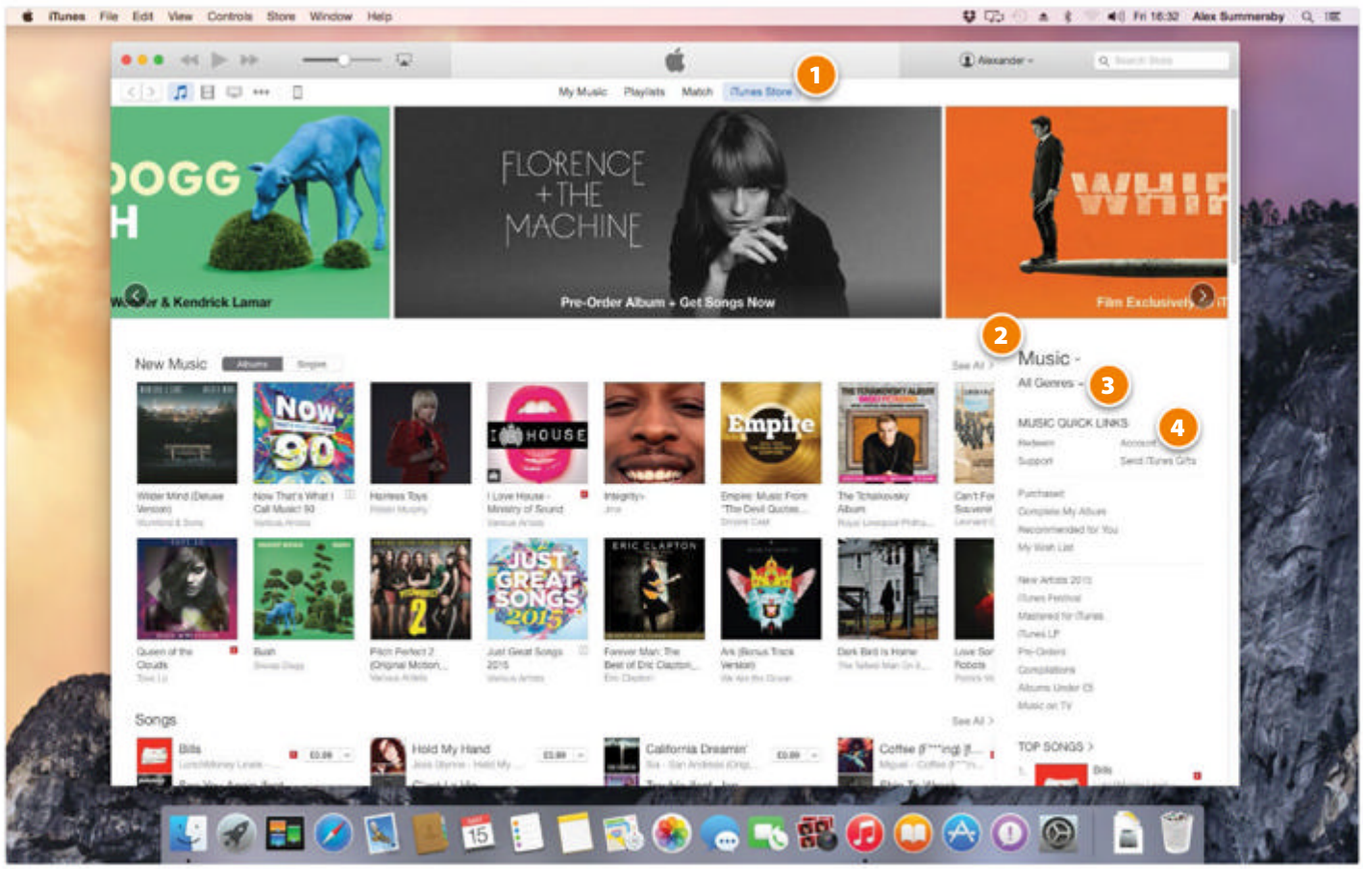
2 To view films, TV Programmes and other content available in the Store, you can either click the icons at the top left or use the pop-up menu at the right beneath the highlights bar.

Sub-categories

3 To view selected genres of music, select from the pop-up beneath 'Music'.

Quick Links

4 Click the appropriate link to redeem or send gift cards, view account details, and so on. These tend to stay the same whichever category you're viewing.



VISUAL GUIDE | USING THE iTUNES STORE



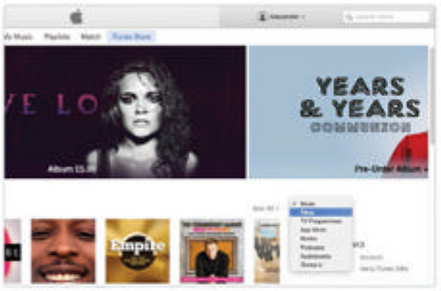
1 Album view

In the Music department, you can opt whether to view albums or singles by clicking the tabs at the top left beneath the highlights bar. In album view you can click an album to view its contents and buy single tracks instead if they're available separately.



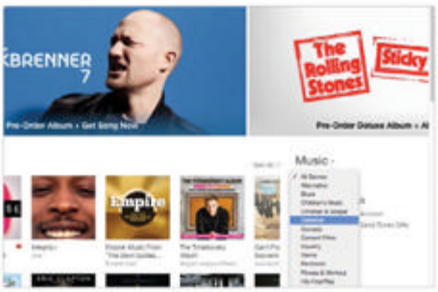
2 Find out more

Move your mouse pointer over various areas and many turn into clickable links. Click an artist's name in any view to see their back catalogue of songs, albums and videos, if any. In any view, you can click the blue Play button that appears next to a track to listen to a preview.



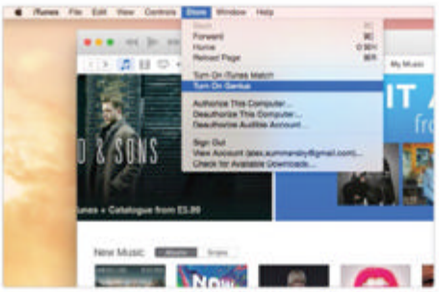
3 Navigation

Move your mouse pointer over a panel in the main window and you can scroll it to the side to see more, or click See All at its top-right. Use the pop-up in the right-hand Quick Links panel to find categories more quickly than using the three-dot 'More' button in the top left.



4 Genres

Click the pop-up beneath the department name and you can opt to view just the specific genre you're interested in – in Music, anything from Jazz or Pop to Singer/Songwriter or New Artists, or even Fitness & Workout. There's a similarly wide choice in every department.



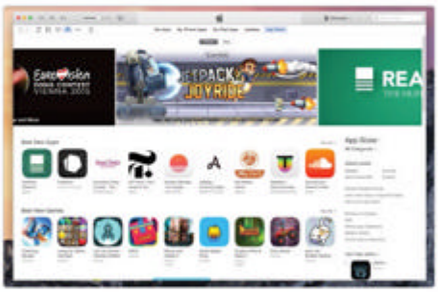
5 Store menu

The Store menu in the main menu bar at the top of the screen includes options not easily accessed elsewhere. Genius recommendations are iTunes' suggestions of songs you might like based on what it knows about your existing library. You need to turn this on.



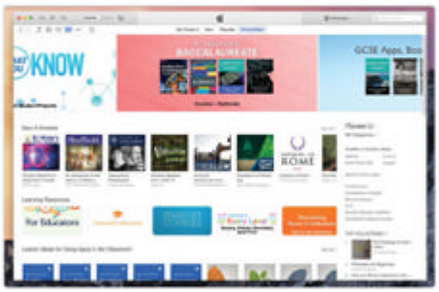
6 Movies

Scroll down for charts and collections. In Movies you can browse by decade or rating to find family-friendly choices. You can start watching without waiting for the download to finish – and watch offline, even in the case of rented films, but only on one device at a time.



7 Apps for iPhone or iPad

As well as music and video, the App Store section makes it easy to find apps for your iOS device (though you then need to sync them; you can also get apps directly on your device – see overleaf). Approaching 1.5 million apps are available for iPad or iPhone.



8 iTunes U

The iTunes Store isn't for entertainment alone, offering ebooks and podcasts on all kinds of topics – and in the iTunes U section you can download great educational resources too. Courses are free to subscribe to, but some additional materials are paid-for downloads.

MOVIE RENTALS

Many movies are available to rent instead of buy. In iTunes 11 there was no easy way to search for one rather than the other, but in iTunes 12 there's a 'Now Available to Rent' section and a direct link to HD Film Rentals in the right-hand column. Renting can save you money, but you have to start watching within 30 days and finish within 48 hours of starting (24 hours in the US). If you later decide to buy a movie you'd previously rented, you don't get a discount.

Buy music and video in iOS

Use the iTunes Store to get music, movies and more on your iOS device

SKILL LEVEL
Anyone can do it

IT WILL TAKE
5 minutes

YOU'LL NEED
iPad or iPhone, iOS 8, Apple ID

Your iPad or iPhone makes the perfect portable entertainment device, whether you're into music, movies or TV. In the distant past, you had to get all your media onto your device by syncing it from iTunes on your computer, but these days it's perfectly feasible to fill your iOS device with media without ever connecting to a Mac or PC.

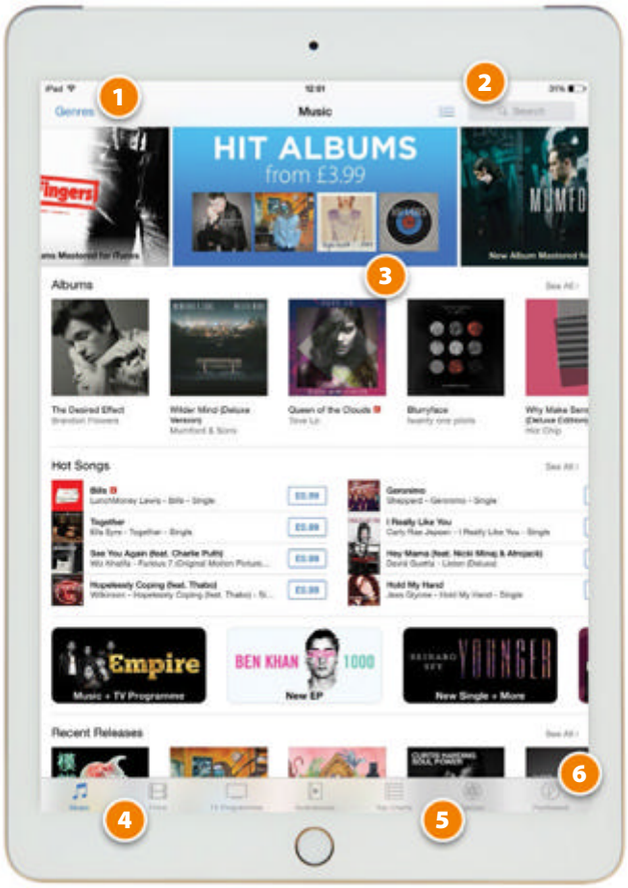
You don't have to get material from the iTunes Store either, but for many people this remains the easiest option whether they're on the computer or on the move, thanks to the built-in iTunes Store app. You have access to the same content and features in the iTunes Store whether you're using a computer or your iPad. You can browse the seemingly endless streams of music, film, TV shows and audiobooks, keep up to date with releases, discover new artists, films and TV series, make purchases, and even send your friends iTunes gifts…

To buy something from iTunes, tap its price and enter your Apple ID password. You can also hear a preview of a song by tapping its name rather than its price. Previews are up to 90 seconds long, so you can really get a feel for the song. There are also previews for films in the form of trailers, and in many cases you can choose whether to buy films or rent them. Films and TV shows are also often available in a choice of HD or SD versions, with the HD versions costing slightly more.

iTunes and iCloud

Most helpfully of all, if you've signed up for iCloud you can get your purchases on your different devices without the hassle of syncing. Whether you buy music and other media on your Mac, iPad or iPhone, you can set it to automatically download on the other devices. You can turn this on in Settings > iTunes & App Store on your devices. If you choose not to turn on automatic downloads (if, say, you don't want to fill up your iPhone's limited space), you can download specific purchases free of charge on any device linked to the same Apple ID: simply tap the Purchased button in the iTunes Store app.

VISUAL GUIDE | THE iTUNES STORE APP



Get content on an iPad without connecting to your computer

Discover new stuff

1 Each media type in iTunes has several sections for you to browse. To access these, tap Genres at the top, which then opens up a full scrollable list.

Search

2 Tap the Search field, and the on-screen keyboard pops open, ready for you to type in whatever you're after. Tap the list button to the left of the search field to display any items that you've previously previewed or added to your Wish List.

Featured content

3 The large top panel on the home page is a great first port of call in the iTunes app, with its featured content. Think of it as a mini media feed, keeping you updated with new releases.

Media categories

4 The iTunes Store is your one-stop shop for all sorts of media. Tap the icons on the bar at the foot of the screen to browse through films (most of which can be bought or rented), TV shows, audiobooks or, a little illogically, the charts in all categories.

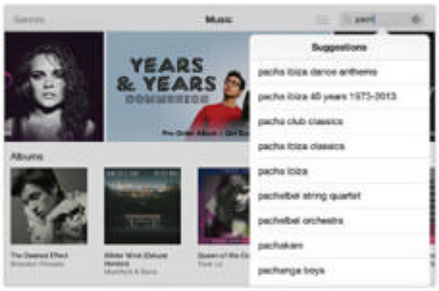
Genius suggestions

5 Genius recommendations help you discover new music, movies and TV shows, based on what you already have in your iTunes Library. You used to have to turn this feature on in iTunes on your Mac or PC first, but you can now do it straight from your iOS device. Obviously you also need to have some content on your iOS device for Genius to work its magic on.

Purchased items

6 Tap Purchased to see all content you've previously bought using the same Apple ID, regardless of which device you used. You can look through your past purchases and re-download any you like onto all your iOS devices and computers linked to the same Apple ID (as many as 10 of them at one time) at no extra cost, via iCloud – simply select an item and then tap Download.

HOW TO | BUY MEDIA USING THE iTUNES STORE APP



1 Search for items

Know what you want to buy? Just tap the Search field, start typing, and results will start to appear immediately, increasing in accuracy as you keep typing. Tap the item you want when it appears in the list, or tap Search; you can further filter the results on the search results page.



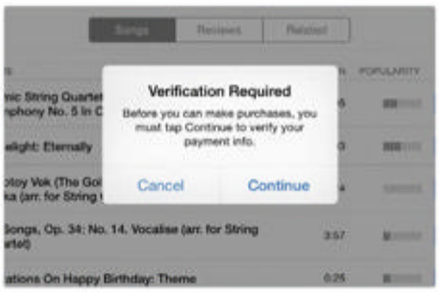
2 Preview and learn more

Tap an item's name to learn more – in the case of a music track, you'll see details of the album it comes from. Tap the track's number (or the preview image next to it in search results) to hear an excerpt; tap Reviews to read other buyers' opinions; tap Related for similar items.



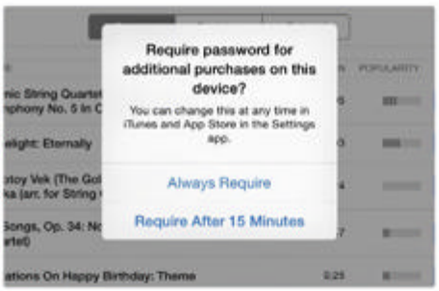
3 Buy a song or album

If other buyers have added ratings, this will be displayed under the album's release date. Found something you like? Tap the track's price, then Buy Song – or if you want to buy the entire album, tap the album price at the top of the panel, then Buy Album.



4 Sign in and verify

Assuming you've signed in with an Apple ID, you'll be asked for the password to confirm the purchase. If the account has an allowance, the cost will come out of that; otherwise it will be charged to the card linked to the account (and you may be asked to verify it first).



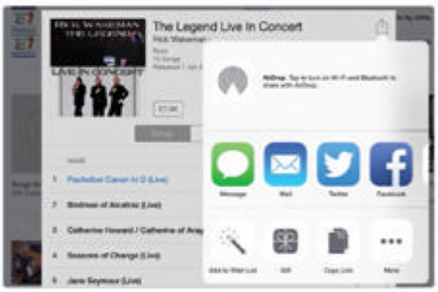
5 More purchases?

By default, you can make more purchases for the next 15 minutes without having to enter your password again. The Store may invite you to change this for extra security but, whichever option you choose, you can change it again at any time in Settings > iTunes & App Store.



COMPLETE YOUR ALBUM

If you've bought one track from an album and then view it again (or keep the panel open while the track downloads), you may get the option to buy the whole album at a discount price (the original price minus what you've already paid for the track).



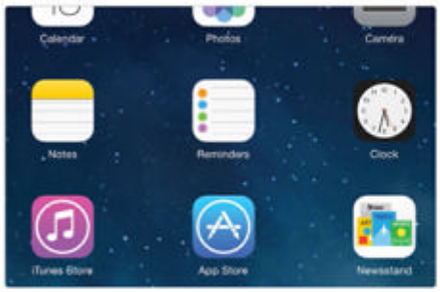
6 Giving and sharing

What if you want to give a track as a gift, or just tell someone about it? Tap the Share icon at the top-right of the album information panel and you can choose to tell contacts via Mail, Message or your usual social networks, add it to your Wish List or gift it, among other options.



7 Gifts and allowances

Want to send an iTunes credit rather than a specific item? On the main Music, Films or TV Programmes page, swipe down to the bottom and tap Send Gift. Confusingly, if you want to redeem a gift card you've received, you must tap Redeem here before selecting an item.



8 Apps and other content

On an iOS device, you need to go to the App Store, a separate app, to buy or download apps, games or magazines. (Once downloaded, magazines appear in a special Newsstand folder, but the Store button within Newsstand takes you to the relevant section of the App Store.)

Buying music and more

It's easy to make purchases from the iTunes Store or give gifts

SKILL LEVEL
Anyone can do it

IT WILL TAKE
15 minutes

YOU'LL NEED
iTunes 12, Apple ID

You probably set up an Apple ID when you first set up your Mac. Before you can buy anything from iTunes, though, you'll either need to let Apple know your bank card details, or buy an iTunes Gift Card. Follow the steps below to enter your account details – it's very quick and easy to do.

From there, you can buy stuff for yourself and even buy iTunes gifts for others. You can see what you need to do to buy someone a gift card – and how to go about redeeming one – on the opposite page.

If you want to put a bit more thought into your present – say if your recipient would like a particular song or movie – you can gift a specific item. You can give any song, album, video, audiobook or app, as long as the recipient has a valid email address.

In the iTunes Store, find the item that you want to gift, and click the arrow to the right of the item's price button. From the pop-up menu that appears, choose Gift This… and a dialog will appear, asking you to fill in your details and those of the recipient, including an optional message. After providing them, choose whether to deliver the gift right away or on a specific date, then click Next and finalise the purchase.

HOW TO | BUY MUSIC FROM THE iTUNES STORE



1 Get started

Click Sign In at the top-right of iTunes and then click Create Apple ID to set up an Apple account if you don't have one; otherwise, sign in using your Apple ID and password. For a new account, you'll be asked to set a password and security questions to protect it.



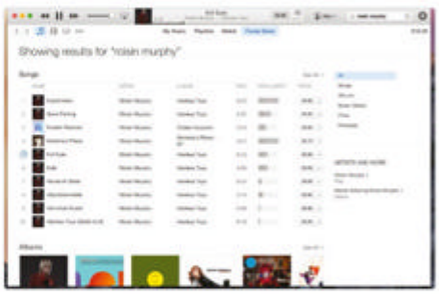
2 Terms and conditions

You'll be asked to agree to Apple's terms and conditions and its privacy policy. Tick the box that says you agree. (Not that you have a choice; if you don't, you won't be able to go any further.) Confirm whether you want to receive emails from Apple, then click Continue.



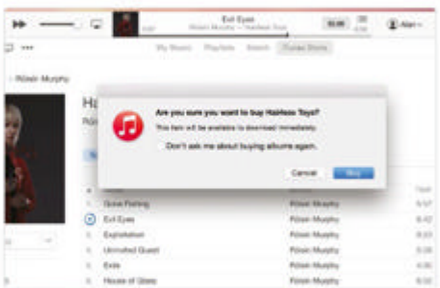
3 Payment method

iTunes needs a payment method to charge you for purchases: a bank card or the code from an iTunes gift card. Also enter your billing address. After you click Create Apple ID, follow the instructions in the verification email you receive. Click OK in iTunes to go to the store.



4 Find your favourites

Search for artists and tracks using the Search box (top-right). The results page shows you not only albums and songs by the artist, but also related videos, podcasts and apps. To hear a short preview, move the pointer over a song and click the play button that appears to its left.



5 Click buy

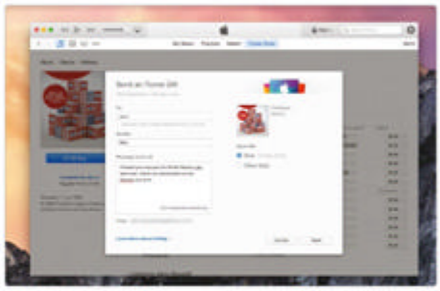
When you're ready to buy either a whole album or an individual song, click the price label next to that item. (Note that tracks labelled 'Album only' can't be purchased individually.) The store will charge your payment method and your download will begin in seconds.



6 Download and play

Your purchase will download to your library. Tracks purchased on your other devices will automatically download on your computer only if that option is on in iTunes > Preferences > Store. If not, they'll still appear in your library; click the cloud icon next to one to download it.

HOW TO | REDEEM AN iTUNES GIFT AND BUY OR RENT VIDEO



1 Sending an iTunes Gift

Click the arrow next to a song's price and choose Gift This Song, or click on Send iTunes Gifts under Quick Links on the storefront. The latter emails a message and a code that the recipient can redeem for credit on their iTunes Store account – anything from £10 up to £100.



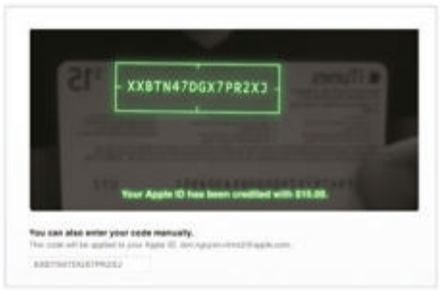
2 Redeem an iTunes Gift

To redeem an emailed iTunes Gift if you receive one, just click the Redeem Now button in the email. This will open your web browser, then iTunes, with the redemption form filled in automatically. Click Done. In the iTunes Store, your credit will be shown at the top-right.



3 iTunes Gift Card

You'll no doubt have seen these credit-card size gift cards in shops and newsagents. They're available in denominations of £25, £50 and £100, and there's a code beneath the scratch-off panel on the reverse that's easily redeemed either on a computer or iOS device.



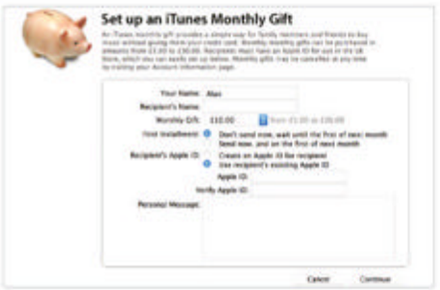
4 Redeem via a camera

On a Mac with a FaceTime camera, you can redeem a gift card without typing. Go to the iTunes Store main page, click Redeem and then Use Camera. Hold up the card to the camera and iTunes should recognise it. Click Done and your credit at the top-right will be updated.



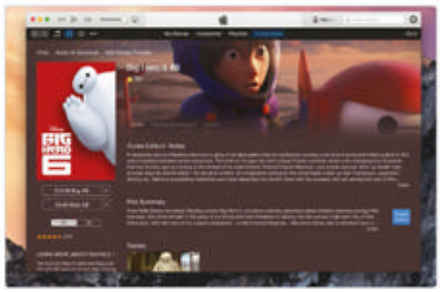
5 Redeem manually

If your Mac doesn't have a camera or it won't recognise the card code, go to the iTunes Store and under Quick Links at the right, click Redeem. Enter the code into the form, then click Redeem. iTunes should confirm the code and update your store credit at the top-right.



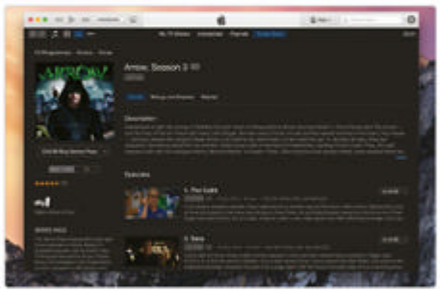
6 Provide an allowance

Apple enables you to set up a monthly allowance for the iTunes Store so your children can buy things (http://apple.co/1FVFFnb). On recent Macs and iOS devices, Family Sharing gives you final approval of every purchase your kids attempt to make (http://apple.co/1LGSxwt).



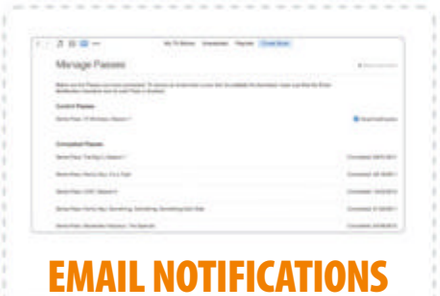
7 Buy or rent films

Click the Movies icon at the top-left, then iTunes Store (top-middle). Click a movie and you might see, under its art, that you can buy or rent it. Below that, you can opt for high or standard definition. Also, for HD, check the download quality setting in iTunes > Preferences > Store.



8 Buy TV shows

TV shows can be bought as episodes and entire seasons, but not rented. Like films, some are available in HD and SD qualities. For season passes (seasons that are still airing), the store sends an email when a new episode is available, with a link that tells iTunes to download it.



EMAIL NOTIFICATIONS

If you buy a lot of season passes and feel you don't need to receive emails for every new episode, you can disable it for some or all of your TV shows. Choose Store > View Account, look under Settings for Passes and click Manage next to it.

Allowances and controls

Give your children access to their own personal iTunes collection

SKILL LEVEL
Taking things further

IT WILL TAKE
30 minutes

YOU'LL NEED
iTunes 12, Apple ID for each child (you can set one up as you go)

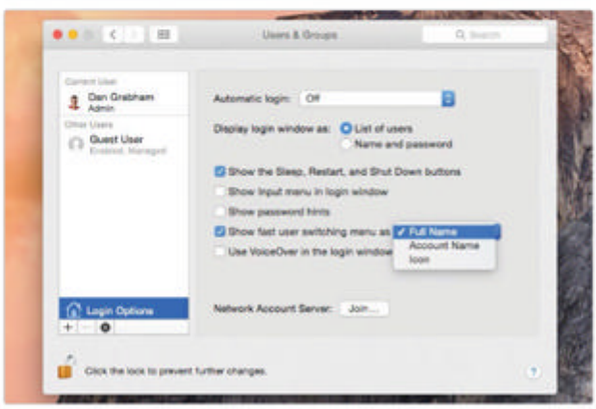
Are you fed up with your kids (or anyone else) constantly bugging you to download the latest apps or buy them music from iTunes? If so, then you should make use of one of the little-known gifting options that enables you to set up a monthly allowance for them using the iTunes Store.

The process will create an Apple ID for them (if required), and you can credit their account with anything up to £30 per month. Your child will get his or her own password that they can use to log into the iTunes Store, and then they can start spending money on downloading apps, music or anything else that can be purchased from the Store.

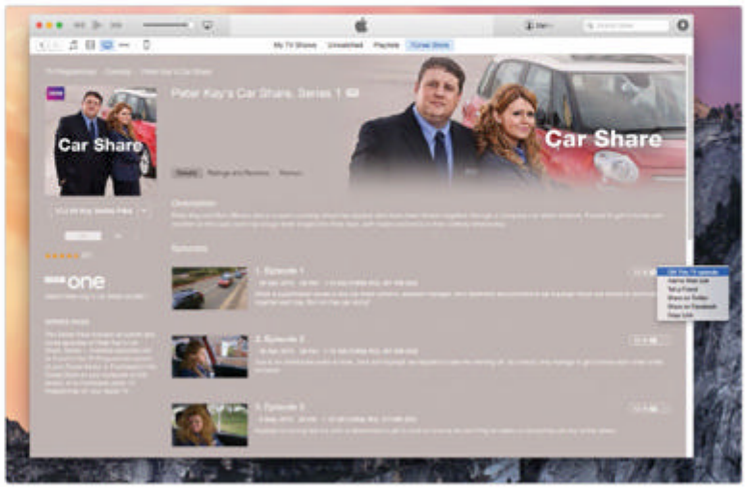
If all of this sounds a little scary – children must be older than 13 to use the Apple Store, but there's nothing to stop your young teen from subsequently downloading apps rated 17+ – then don't worry. In the guide opposite we explain everything you need to know about both setting up allowances and then applying parental restrictions on both your home computer running iTunes and your child's iPhone, iPad or iPod touch.

One-off gifts

There will be times when you want to give one-off gifts too, perhaps by topping up your child's credit as a reward or for a birthday present. To do this, return to the main iTunes Store screen, then click Send iTunes Gifts. The gift – which can be anything from £10 to £100 – is emailed to your child, who



You'll need to have Fast User Switching enabled to share your iTunes library with other users through Mac apps such as Photos and iMovie.



You can gift TV shows, music albums and more through iTunes for a more personal gift.

With an Apple ID, your child can have their own iTunes allowance with a monthly spend

then redeems it against their own Apple ID (see page 27). The credit will then be added to any existing credit they have.

If you'd rather make your gift more personal and choose a specific app, album, TV show or other iTunes Store item for your child, you can 'gift' it – this means browsing to the item in question, then clicking the arrow next to its price (Mac or Windows) or tapping the Share button (iOS) and choosing Gift. Your child is then sent an email, and by clicking the link in the gift they'll be able to download the item straight away.

More sharing options

There are lots of ways you can share your iTunes library with other users – including your kids – and we outline these different ways elsewhere (starting on page 64). But what about sharing your iTunes library within the common Mac apps such as Photos and iMovie? Assuming you've set up your Mac with individual accounts for each person in your family, it's worth remembering that each user has their own personal iCloud library. This means that when your children open Photos for the first time they won't have access to all the items in your library, only their own photos, music and other material stored in their personal user folders.

You'll need Fast User Switching enabled in System Preferences > Users & Groups > Login Options (you'll need to click the lock and enter an administrator password to make changes). This enables you to switch between user accounts without having to close your open apps and log out.

If you now enable sharing in iTunes (Preferences > Sharing > Share my library on my local network) then your children can access your shared music. Remember that your iTunes library, if you share the whole thing, will include movies and TV shows – alternatively, see opposite for a way of selectively choosing what gets shared.

A better option for sharing is to make use of OS X's Shared folders. Anything you put in Users > Shared is both visible and available to every user on your Mac, which is useful for files that everybody wants or needs to access to. Locate it using Go > Computer from the Finder menu bar (then click System if need be). You can also use the Public folder within your own user folder. See page 64 for more on sharing iTunes content.

HOW TO | SET ALLOWANCES AND RESTRICTIONS

1 Set up allowance

Launch iTunes and click on the iTunes Store. In the Quick Links section on the right, select Account and sign in when prompted. Scroll down to the Settings section and click Set Up an Allowance. Fill in your name and your child's where prompted, then choose the amount to give them on a monthly basis – £10 is the default, but you can choose a figure between £5 and £30. Allowances are credited to your child's account on the first of each month, but by default iTunes will send the first instalment now, then send future installments as planned – to change this, make sure you select 'Don't send now, but wait until the first of next month'.

Your child will need their own Apple ID to make use of a gift allowance. If they already have an Apple ID, enter the email address here. If not, select 'Create an Apple ID for recipient'. Finish by adding a personal message if it's required and click Continue.

If you're creating an Apple ID, you'll be prompted to fill in their details. An Apple ID must be a valid email address. This means your child will need their own address. Considering that most free email systems, such as Gmail, require users to be over a certain age, you might want to set these addresses up yourself first. Once the Apple ID has been created, you'll then need to verify their email address by clicking on the link that Apple sends to it.

2 Using the allowance

Once money has been credited to your child's account, they can log in and start downloading apps, music, movies, games and more. The first time they log in, it's a good idea to do it with them so you can check that all of their details are correct, plus show them the ropes and set some informal guidelines about what they should and shouldn't do. Don't worry, you can enforce these rules through parental control settings, which we'll cover shortly.

In the meantime, you've done everything you need in order to empower your children and give them a measure of independence. For your part, once you've set up an account, you can manage your allowances at any time by clicking your name in the top-right of your iTunes 12 window, then selecting Account Info from the menu that appears; scroll down to the bottom of this window and click Allowances. You can also access this screen by clicking Account at the bottom of any iTunes Store or App Store window.



Restrict access to specific content in iTunes by utilising the Parental tab.



You can give your children iTunes credit in the form of monthly top-ups.

3 Activate parental controls

Select iTunes > Preferences (Mac) or click the iTunes menu button and choose Preferences (PC). Switch to the Parental tab to control access to iTunes' features and content ratings. For example, you can prevent your kids accessing your podcasts, other Macs' shared libraries, Internet Radio or the iTunes Store. Note you can opt to disable the iTunes Store but still allow access to iTunes U. This is great for stopping kids downloading apps but still letting them download educational material for their studies.

For content you've bought from the iTunes Store, you can enforce age ratings – so you can limit movies to PG only or block access to apps rated for adult content, say. However, note that such ratings don't apply to content from elsewhere, such as ripped DVDs or CDs. Don't forget to click the lock to prevent your children undoing your changes.

If you use iTunes' sharing options (Preferences > Sharing) to share content across your network, remember that your kids have access to this too. By selecting Share Specific Playlists, you can restrict access to specific types of content or individual music playlists. For additional protection you can also add password-protection – tick 'Require password' and choose a unique password, then communicate this to older family members only.

4 Set up mobile restrictions

You can enable Parental Controls – called Restrictions in iOS – on an iPhone, iPad or iPod touch. Go to Settings > General > Restrictions. Hit Enable Restrictions and enter a passcode. This passcode is needed to make changes to the Restrictions settings, but make sure you remember it yourself or you could lock yourself out of key parts of your device. If you do this, the only way around it is to wipe your iPhone or iPad and start again from scratch, a time-consuming task.

You can set restrictions that prevent entire apps from being used unless the restrictions passcode is entered, allowing you to disable access to YouTube, Camera, FaceTime, apps, game playing and, of course, iTunes. Simply tap the button to On or Off as required. Restrictions can also be placed on making changes to individual accounts as well as specific content, such as your music library. Disabling access to iTunes completely is probably counterproductive, but you can let your children use iTunes while imposing specific limitations such as banning explicit material from music and podcasts, or limiting movies to PG ratings or below.

JARGON BUSTER

Passcode

A four-digit number required to unlock your iOS device. A Restrictions passcode is a separate passcode that can be set up to control access to sensitive areas of the device, including age-restricted iTunes material.

Import/playback settings

Master the settings you need for import and playback of your music

SKILL LEVEL
Taking things further

IT WILL TAKE
20 minutes

YOU'LL NEED
Your own audio CDs

The iTunes Store isn't the only way to get music into iTunes. You can 'rip' tracks from your CDs as well as import MP3 files, audiobooks and other digital media files – see the opposite page. Best of all, once you've imported songs, iTunes will attempt to retrieve track info and album cover artwork for them in the same way as it does for iTunes Store purchases. (It uses clever technology to identify a digital song file by its distinctive 'signature', and albums by the precise number and length of tracks, even without any track names.)

This doesn't mean that there's never any differences between songs you've purchased and songs you've imported. The quality of imported media may vary, and the key factor here is the settings you choose in iTunes' Preferences.

The most important of these is the bit rate, which is the sound file equivalent of resolution in an image file. The higher the bit rate, the greater the quality, but also the greater the file size. Free promotional MP3 files downloaded from websites are often encoded at a low bit rate, which means they don't sound as clear or even exhibit a 'phasing' effect (where a single tone seems to waver in pitch). The ideal is to achieve a sound quality that matches that of your CD while keeping the file size reasonable. For general listening, we suggest encoding in AAC format at the default 'iTunes Plus' setting. Of course, other settings will also affect output, including those under Playback in Preferences.

If you import songs, the quality may vary. The key factor is the settings in iTunes' Preferences

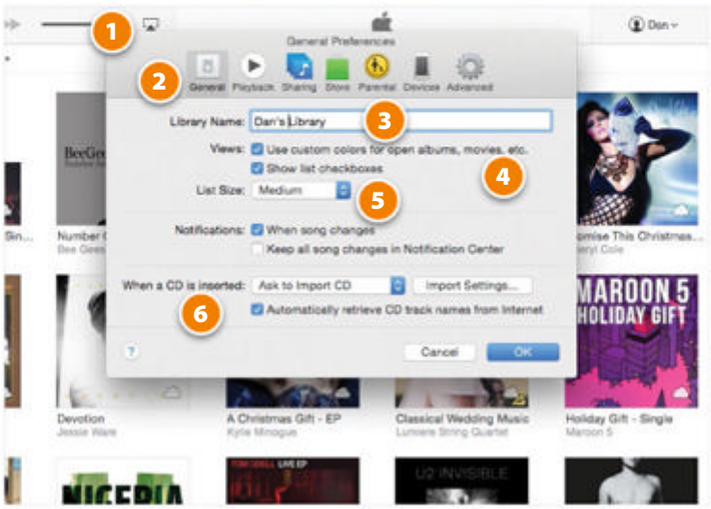
Using Sound Check

When songs are recorded in a studio, the sound engineer sets an overall volume for the master tapes, which determines the volume of the tracks in any format. If you've bought lots of CDs, you'll notice a handful that seem louder or quieter than the others. Hence, when you play songs, you sometimes have to reach for the volume control as the next song either blasts out of your speakers or starts too quietly to hear.

You can adjust individual volume levels in iTunes – see step 5 opposite. Doing this for one or two songs is fine, but if there are significant variances across hundreds of songs, making such changes one at a time becomes a chore. That's why iTunes offers the Sound Check feature. This examines every song in your library and attempts to 'normalise' the volumes (raising or lowering the amplitude as needed to reach an average value). To activate Sound Check, go to the Playback tab in Preferences and tick the Sound Check box. Once it's working in iTunes, you can apply it on your iOS device too. On your iOS device, open Settings, tap Music and enable Sound Check. Note that Sound Check on your iOS device won't work unless it is also activated in iTunes.

Sound Check works in a similar way to the automatic volume feature on some hi-fi systems. Like these, it can overcompensate and smooth out some intentional volume variances, so you may not always like the results. Note too that if you've already altered the volume of any individual songs as explained in step 5 opposite, activating Sound Check will undo these changes and impose its own settings. If you change your mind and deactivate Sound Check, you'll have to make the individual adjustments again.

QUICK LOOK | MAKE iTUNES PERSONAL TO YOU



Open Preferences

1 Go to Preferences in the iTunes menu (on a Mac) or the Edit menu (on a PC) to fine-tune your iTunes settings.

Choose your tab

2 Click the buttons along the top to view and adjust different groups of settings. You can revisit these at any time. Here we'll look at some of the key preferences for personalising things.

Name your library

3 Choose a name for your library – useful for identifying it if others in the same household are sharing. The name can be changed at any time.

Use Custom Colours

4 Choose whether you'd like to use Custom Colours to help identify open albums, movies and so on.

List size

5 If you find details in the iTunes window difficult to make out, you can choose a different List Size. Medium is the default.

CD import settings

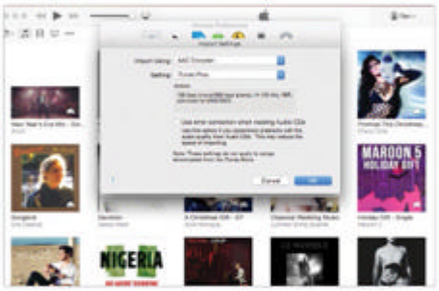
6 Tell iTunes whether you want CD tracks imported automatically when a CD is inserted in a built-in or connected drive, whether you want to eject the disc afterwards and whether iTunes should find track names for you.

HOW TO | IMPORT SONGS FROM OTHER SOURCES



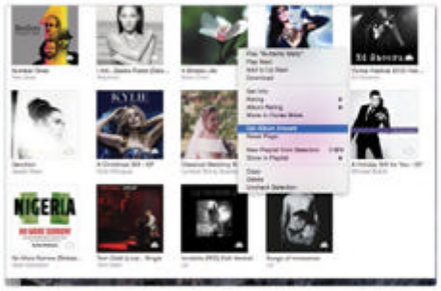
1 Set import preferences

Go to iTunes > Preferences, click the General tab, and scroll down to 'When a CD is inserted'. Choose whether you want iTunes to import the tracks from the CD automatically, just play it or ask to import each time. Click the Import Settings button to set the format.



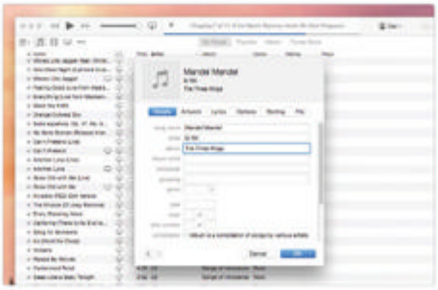
2 Format and bit rate

Songs from the iTunes Store are encoded in AAC format at 256kbps. For similar quality when ripping, use the defaults: import in AAC format at the 'iTunes Plus' setting (128kbps mono, 256kbps stereo). Enable error correction to minimise pops and distortions.



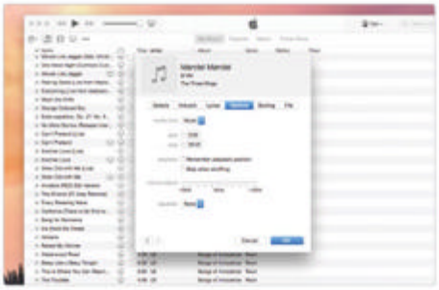
3 Names and artwork

Tick 'Automatically retrieve CD track names' and iTunes will connect to its online database and try to identify each track. If it can't, names will be left as Track 01, Track 02, etc. If iTunes fails to find artwork, right-click the album and try Get Album Artwork. (See page 34.)



4 Correct tags manually

Occasionally iTunes fails to find a track name, or misidentifies a track or artist. Also, the info in its online database may contain errors or misspellings. You can edit track details manually: right-click the song name in iTunes and select Get Info. Click the Info tab and edit as required.



5 Further options

Click the Options tab to tweak more settings if need be. You can make a loud track quieter, apply an equalizer preset if required or add a rating, among other things. Tick 'Remember playback position' and you can resume playback from where you left off.



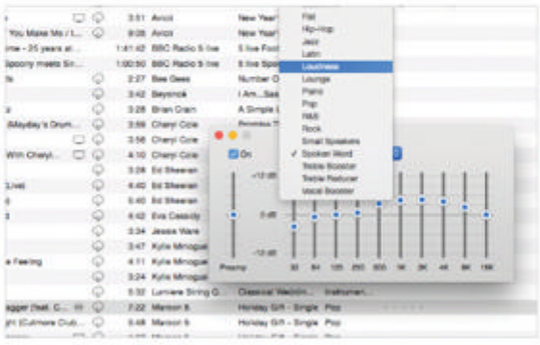
6 Other digital files

iTunes can import MP3 or other audio files you've downloaded (legally, of course), plus audiobooks – downloads from audible.com in Audible's own file format, for example, are supported in iTunes. Click File > Add to Library, select the files, and click Open to import.

Get to know the iTunes equalizer

iTunes' Equalizer enables you to adjust your songs' acoustics, subtly changing the impact of bass, mid and treble frequencies. You can also make the output more bassy so it sounds better through small speakers, boost the vocals, and more besides. To use the Equalizer, go to Window > Equalizer and turn it on. You can choose a preset from the pop-up menu for particular styles, or just experiment with the faders. If you hit upon a sound you like and want to save the settings to use later, simply select Make Preset from the pop-up menu and give it a name you'll recognise later.

You can give each song its own Equalizer setting (see step 5 above): right-click it, select Get Info, then click the Options tab. If you've created your own preset, you'll find it in the list. Make sure you tick the box to activate the Equalizer. You'll need to switch off your iOS device's own Equalizer, though: any setting you apply in it will override the individual iTunes track setting.



Use iTunes' built-in Equalizer to adjust the sound balance of individual songs, and bring out the very best acoustic playback from different styles of music.

Getting media into iTunes

Handy hints for converting things to a format that works with iTunes

SKILL LEVEL
Anyone can do it

IT WILL TAKE
Depends on how much data you have

YOU'LL NEED
Media not in an iTunes-friendly format

Generally speaking it's very straightforward to get media into iTunes: simply use File > Add to Library, or double-click the media file itself. Here are some tips for trickier situations…

Rip your old CDs at optimum quality

iTunes can import tracks from CDs: by default it will ask whether you want to do this as soon as a CD is inserted in a built-in or connected drive. In iTunes > Preferences, in the General section, you can change this using the menu next to 'When a CD is inserted'. Click the Import Settings button to adjust the settings used for ripping CDs. Everything from lower-quality MP3 to full-quality WAV is available, but for most people neither of these will be ideal – low-quality audio is particularly poor, and uncompressed audio uses a lot of space. We advise sticking with AAC Encoder and iTunes Plus; if you must use a Custom setting, a bit rate of around 192kbps should give you a good balance of audio quality and file size; leave the Sample Rate and Channels set to Auto.

Convert home movies

iTunes can play back movies in .mp4, .m4v and .mov formats, but your home movies might be in another format, especially if they've been shot on a camcorder. iTunes won't let you import movies that it can't play, so you can use a third-party app like HandBrake (free, http://handbrake.fr). This app makes conversion particularly easy: just click the Source button in its toolbar and select your existing movie file, click Toggle Presets (if the presets tray isn't already visible), select the appropriate Apple device preset, and finally click Add to Queue and then Start. If you want to make iTunes versions of DVDs that you already own, HandBrake enables you to convert those as well. Add the file that HandBrake creates to iTunes, then right-click it in your library and choose Get Info to set its metadata.

Send from iMovie, Photos and GarageBand to iTunes

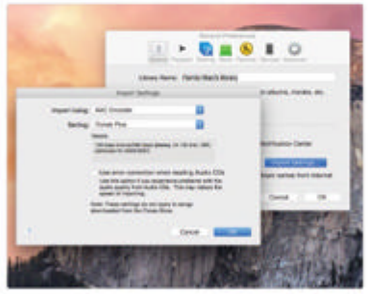
Apple's iMovie and GarageBand apps are designed so that when you finish a project you can export a version of it directly to iTunes, in formats compatible with your iOS devices. If you've created a song in GarageBand or a movie in iMovie, you can choose to share these directly to iTunes and they will be compressed into the correct format. From Photos (and iPhoto, if you're using OS X 10.9 or earlier), you can create a slideshow of pictures and export it straight to your iTunes library, and sync it from there to your other devices.



iTunes can copy items to its media folder when you choose File > Add to Library in its menu.

Copy when importing

When importing media, iTunes can just remember where the file is rather than copying it to the iTunes Media folder. In iTunes' Preferences, click on Advanced and you can choose which way it works. If you copy files, data is duplicated and your hard drive will fill up more quickly unless you remember to find and delete superfluous original files. On the other hand, copying when adding means that if the original files are moved or deleted, iTunes will still have a copy, which in turn can be moved or backed up. Which you choose depends on how good or bad your file management habits are.



iTunes can import audio CDs to a variety of formats and a wide range of qualities, depending on how much space you want them to use.



Naturally GarageBand, iMovie and Photos work well with iTunes and your Apple devices; projects can be exported directly to your iTunes library.

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Available on the App Store

Find missing artwork

Add artwork to every track in your iTunes library

SKILL LEVEL
Anyone can do it

IT WILL TAKE
15 minutes

YOU'LL NEED
Tracks without artwork, Album Artwork Assistant

Album artwork may not make the world go round, but it certainly makes iTunes look that bit prettier and can help find items more quickly. If your iTunes library is full of music you've purchased from iTunes, chances are that everything has artwork in place, but if you've ripped some older albums or some obscure CD singles, or purchased music from another online retailer, you might find that certain albums are missing their artwork.

You can fix missing artwork with the help of the free Album Artwork Assistant app

Fixing this problem is simple: just follow our step-by-step guide opposite to use a free app called Album Artwork Assistant, which plugs into iTunes and makes it easy to fill those holes in your collection. If you have a large number of albums containing missing artwork it might take you a while to go through them all manually, in which case a commercial program like TuneUp (from tuneupmedia.com) might be worth exploring.

If you've purchased individual singles and then compiled your own album, you might also find that while you have a nice album cover, you might prefer each track to be displayed with the single's original cover rather than the album one. The quickest way to add single artwork to individual tracks is with the help of Safari – see below.

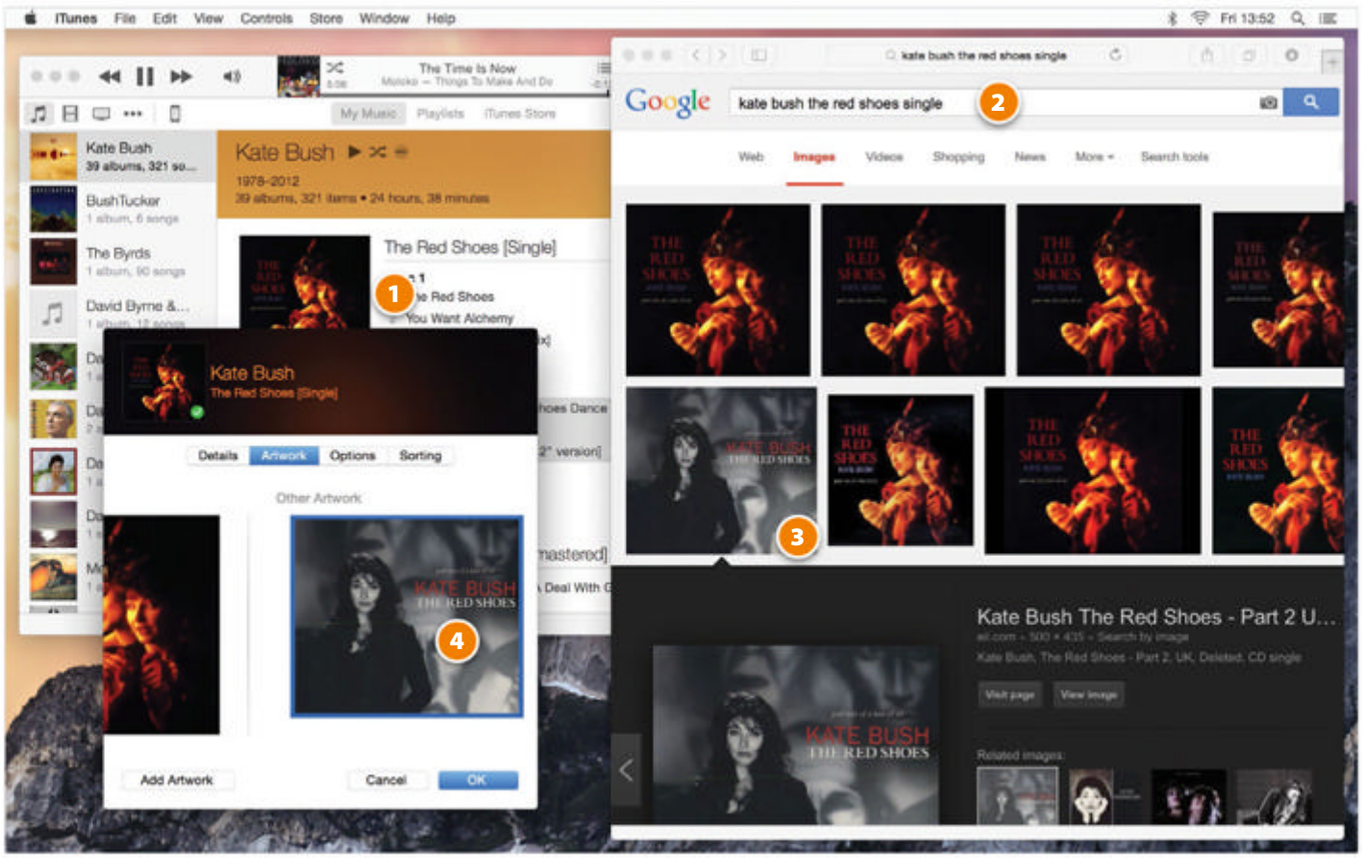
QUICK LOOK
ADD ARTWORK

Select track
1 Click the album in iTunes to view its track listing, then right-click the track you wish to add artwork to, choose Get Info and click the Artwork tab.

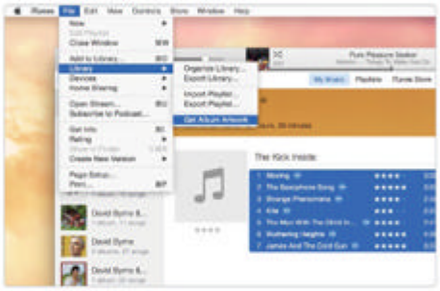
Start search
2 Open Safari and type the name of the artist and the track into the address/smart search bar. When the Google search results appear, click Images.

Locate image
3 Move the pointer over an image to see its dimensions – look for 500x500 or larger if possible (you can click 'Search tools' and select Size > Large).

Add image
4 Click the image to select it, then click View image. When it loads, click and drag the image across into iTunes' Get Info window. Click OK to finish and move on to the next track.

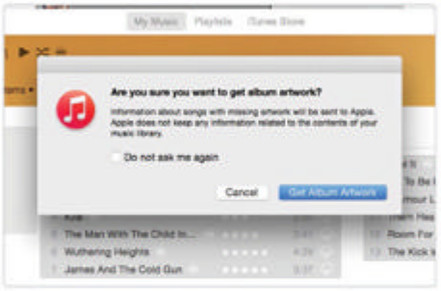


HOW TO | FIND AND ADD MISSING ARTWORK



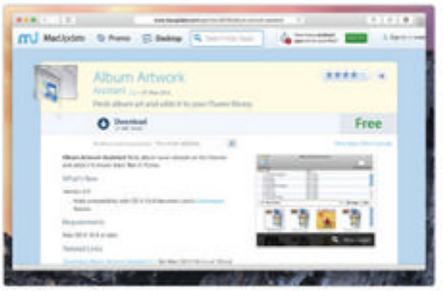
1 Try iTunes

First, see if iTunes can automatically locate and download the artwork for you. In iTunes' main menu bar select File > Library > Get Album Artwork. You'll see a progress bar appear at the top of the iTunes window as it searches for missing artwork to download.



2 View results

Your library will update with discovered artwork, but if it contains older or more obscure items, you'll probably see a message informing you that artwork couldn't be found for some of them – click 'xx total notifications' for a full list. Click Save to keep the list for reference.



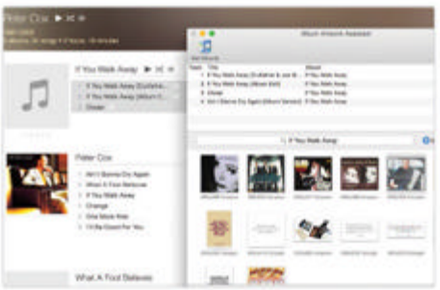
3 Download a helpful app

Visit macupdate.com/app/mac/29769 to download Album Artwork Assistant. Once it has downloaded, double-click the archive to unpack the app, which you can then run directly from your Downloads folder or copy to Applications as you desire.



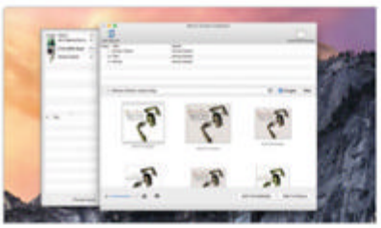
4 Queue up track

In iTunes, select a track from an album that's missing artwork (it must be stored locally; if there's a cloud icon next to it, click that to download the track first). In Album Artwork Assistant click Get Albums to search the web for images matching what you selected in iTunes.



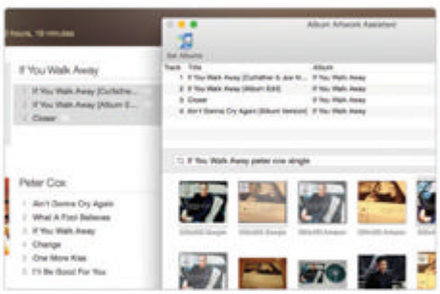
5 Review search

A list of potential image matches from Google and Amazon based on the album's name will appear in the list – make a careful note of the image's dimensions beneath its thumbnail – ideally your target image should be at least 500x500, but the bigger the better.



QUEUE UP ARTWORK

Album Artwork Assistant can queue artwork to be added to iTunes rather than process it immediately. When you choose that option, a tray slides out at the side of the app's window. Click Process Queue at the foot of it to apply all artwork.



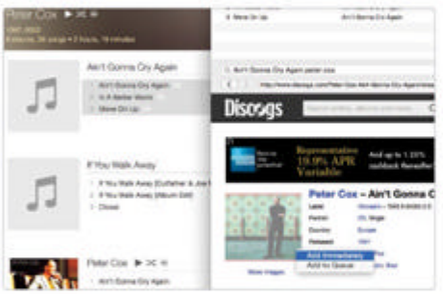
6 Refine search

If you're struggling to get a match for what you're looking for, try adjusting the search terms in the middle bar – too many irrelevant results for a Greatest Hits search? Include the artist's name. Not enough search results? Try just one or two keywords from the title instead.



7 View and select

Use the slider (bottom-left) to enlarge the images. When you find one that looks good, select it and click the eye button (or press the space bar) for a closer look. If you like it, click Add Immediately and the app will add the art to all of that album's tracks.



8 Web search

If the image search yields no results, select Web next to the search box to try locating a site containing the images you need. Click the link to visit it – if you're able to locate an image using this method, you can right-click on the image and select Add Immediately.

Manage your metadata

Use built-in tools to make your library easy to browse, organise or search

SKILL LEVEL
Anyone can do it

IT WILL TAKE
15 minutes

YOU'LL NEED
An audio CD to import, or tracks already in iTunes

Every item in your iTunes library has metadata attached which determines where it appears in the library. For music, it includes song titles, artist names and track numbers, while TV shows record season and episode numbers, and movies have a genre.

It's unlikely you'll need to modify the metadata for video in your library, unless perhaps you import a lot of home movies into iTunes and want to sort them – in which case the ability to enter any genre name you want, not just those that are already created, makes things easier to find. For example, you might have one genre for family holidays and another for baby videos.

The media category whose metadata you're most likely to set, though, is music – especially if you need to import it from a physical format, such as CD.

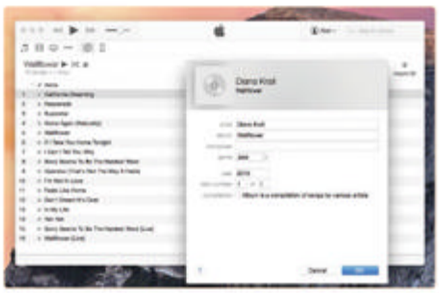
iTunes can save you time typing disc information because it connects to the Gracenote service, an online database that can identify many popular CDs within seconds of putting one in your Mac. Even then, you might want to check what's downloaded because information is submitted by the public – you can contribute, too – and you might find spelling mistakes or errors you want to correct. Here's how to do it.

HOW TO | EDIT METADATA IN iTUNES



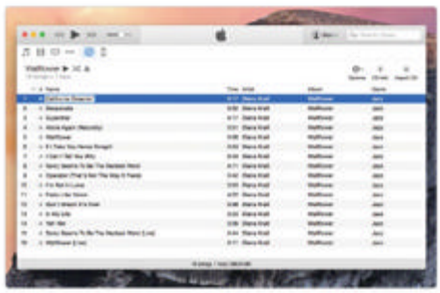
1 Import settings

In iTunes' General preferences are options that determine what the app does when you insert a CD and whether it retrieves details from the internet. You might disable the latter to ensure accuracy by entering details yourself. Insert an CD and wait for iTunes to recognise it.



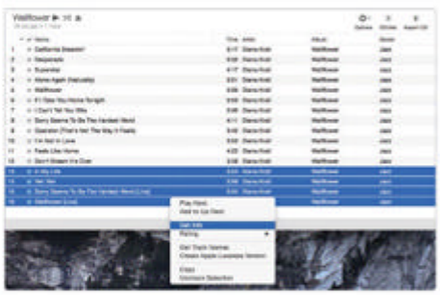
2 Disc title and artist

Click the CD Info button at the top-right and ensure the summary is correct. Note the tickbox that indicates this is a compilation; if this is enabled, the music sorted by artist, and if the view option is set to group compilations, the album will be listed at the top of the left pane.



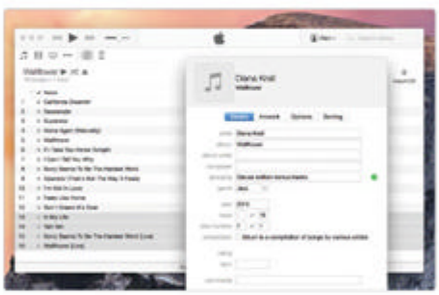
3 Making corrections

Click OK to return to the track list. If any information is incorrect, click once on its row, then click once more to edit the item. Once this is done, you can press ↵ to commit your change, or press ⇥ to move the focus to the next piece of metadata in the same row.



4 The metadata editor

If just some of the tracks on the disc share attributes, hold ⌘ and click on them to select them. Right-click one of them, choose Get Info and confirm you want to edit details for several tracks at once. A window with several categorised tabs for metadata will open.



5 Details and sorting

The Details tab contains things you'll always want to set. The Sorting tab enables your media to be sorted like a proper library – alphabetically by artist surname and ignoring leading words such as 'The'. Ignore it for now because its information will be lost at this stage.



6 Existing library items

Instead, after importing, select the album in your library, right-click and choose Get Info. You can do this for any item in your library. (Editing just some tracks enables you to add different artwork for discs of, say, a CD single.) See page 34 for ways to add album art.

Future

techradar.

TECHNOLOGY. TESTED.

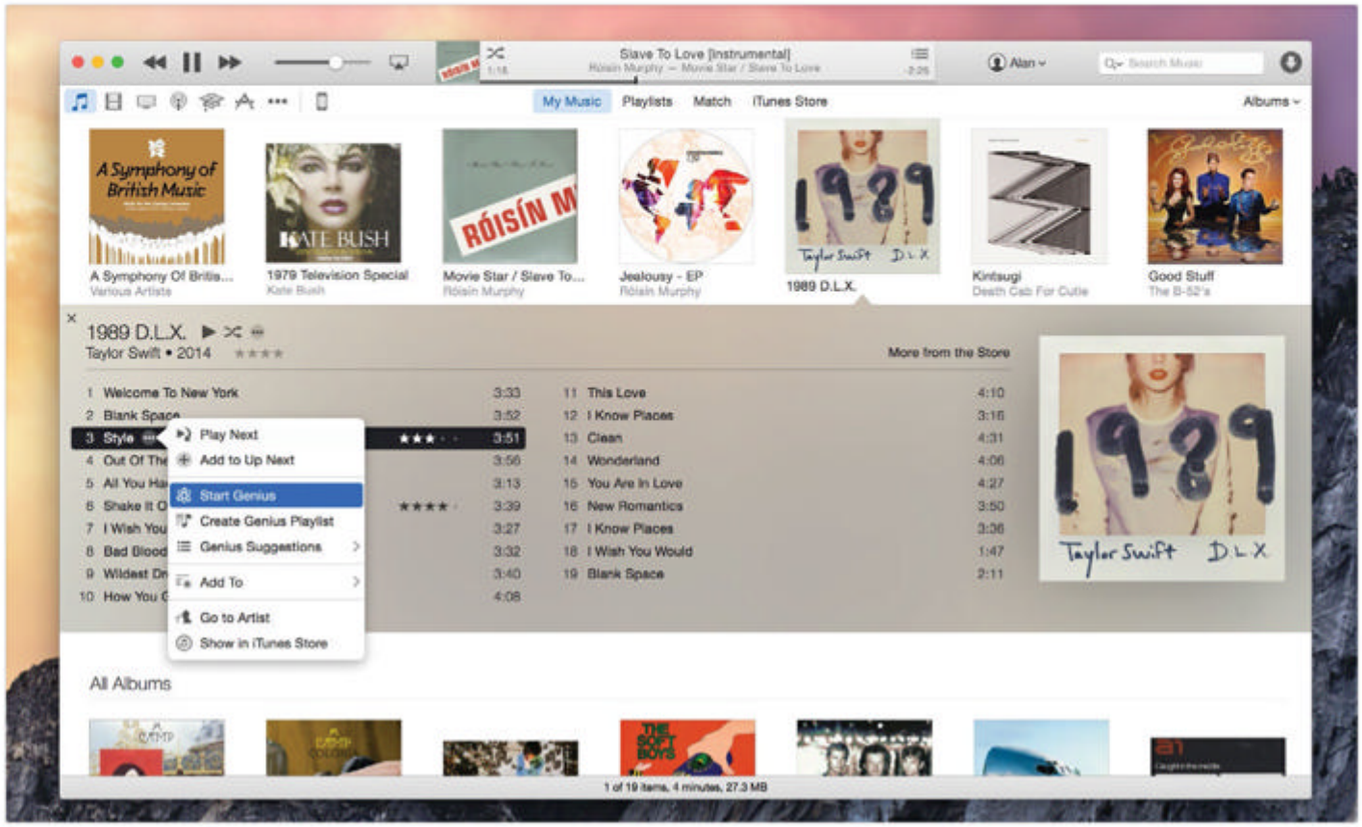


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iTunes provides more powerful playback controls than just the buttons in its top-left corner.

iTunes' playback controls

iTunes has some handy playback controls with hidden features

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
Some music already in iTunes

Even if you've never used iTunes before, you should easily be able to get to grips with its basic controls for playing back your media. It uses all the standard play/pause, skip forward and backward controls you'll find on everything from an iPod to a home stereo. But iTunes also comes with a few neat additions in the form of an AirPlay mode, a MiniPlayer and a great feature called Up Next to make things more fun.

Up Next is a way of seeing – and even changing – what gets played next or scheduling when a track is played. It was introduced in version 11 and gives you even more control over your music.

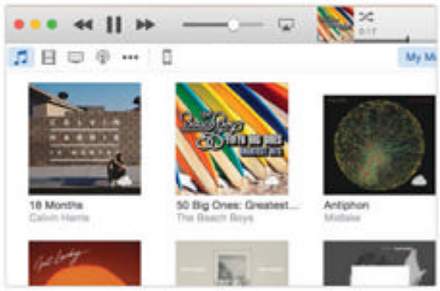
The MiniPlayer is an option that we think more people should make use of. It shrinks down the amount of desktop space that iTunes takes up but still manages to squeeze some really useful features into a tiny space. It can also optionally be floated in front of any other open windows, so the playback controls are always on hand (set this in Preferences > Advanced).

To switch to the MiniPlayer, go to the Window menu and select this option, tap ⌘+⇧+M, or click the small album artwork at the left of the status area (the 'now playing' panel). Inside the MiniPlayer you can see what tune is playing next using the Up Next feature, and if you don't like that particular song you can search your entire music library for something else without having to leave the MiniPlayer. It's worth making sure you're signed into iCloud when you use iTunes, because it now remembers the exact place you left off in a movie or song. So, for instance, if you open the same file on any other device linked to the same Apple ID and connected to iCloud, such as your iPad or iPhone, playback restarts exactly where you need it to. This is not so useful for music, but it's essential for watching movies.

The MiniPlayer squeezes features into a tiny space, without cluttering up the desktop

Keeping your playback positions in sync is just one of the great features in iTunes 12. To get the most from Apple's media management and playback app, it's useful to know how they all work. So let's take a closer look…

HOW TO | PLAY MUSIC AND VIDEO



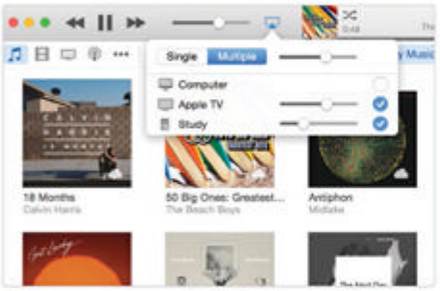
1 Standard controls

To play a track in your library, double-click it. Click the pause button (top-left) to pause it; this turns into a play button, which you can click to resume playback. Click the arrow icons to skip forward or backward a track in the current playlist; adjust volume with the slider.



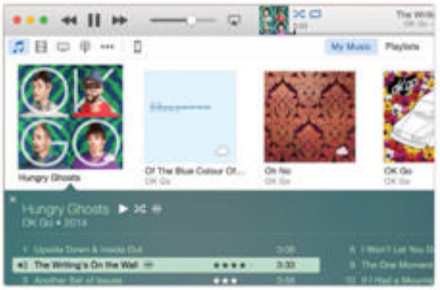
2 AirPlay mode

If you have AirPlay devices on your Wi-Fi network, such as AirPlay speakers or an Apple TV, an AirPlay icon is visible next to the volume slider. Click it to select which AirPlay device you'd like to play music to. The computer you're using is selected by default.



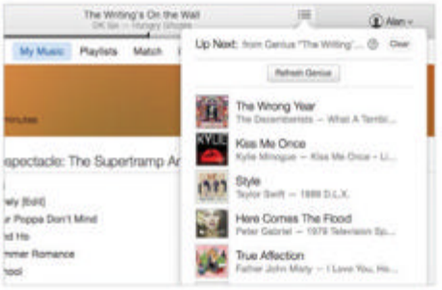
3 AirPlay volume

You can output music to several AirPlay devices at once by clicking Multiple at the top of the list of devices. Click the circle to the right of any device you want to send to. Each has its own volume slider, enabling you to play music more loudly in one room than another.



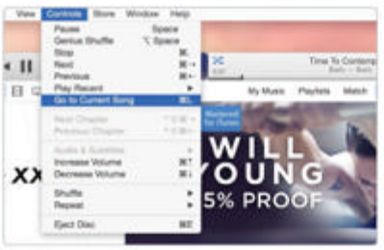
4 Shuffle and repeat

Go to Controls > Repeat > All to loop the current playlist, or One to loop the current track. A new blue icon at the top-left of the status area indicates this is active. Click it until it turns black to disable Repeat. To play tracks in a random order, click the adjacent overlapping arrows.



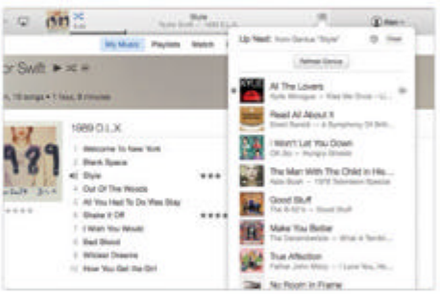
5 Up Next

Click the list icon at the right of the status area to see upcoming tracks. Move the pointer over a track in your library and click the ellipsis ('…') that appears next to it. The first two options listed will add the track to Up Next, either as the next to play or at the bottom of the queue.



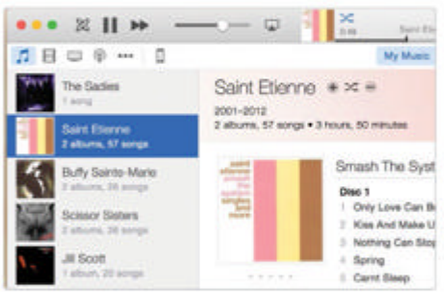
GO TO CURRENT SONG

To return to the current song, even if you're in the iTunes Store, press ⌘+L. If you've switched iTunes to MiniPlayer mode (see opposite page), it will switch back to its full window.



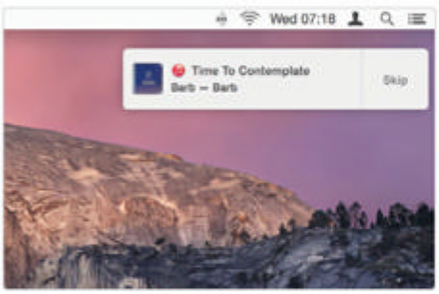
6 Manage queued tracks

In the Up Next panel, you can drag tracks up or down the list of queued tracks to change the playback order. Remove a track by hovering over it and clicking the 'x' at its left-hand side. To view a list of recently-played tracks instead, click the clock icon at the top-right of the panel.



7 Genius Shuffle

If you haven't already enabled Genius, go to Store > Turn On Genius. Once it's set up, hold ⌥ and the button that normally goes back a track changes to an atom-like icon. Click it and iTunes will automatically play tracks that sound good together. Click again for a new selection.



8 Music notifications

OS X's notification system can inform you when a new track starts playing; go to iTunes > Preferences > General to check this is enabled. When a notification appears, move the pointer over it for an option to skip the track, or click the notification to view the track in iTunes.

iTunes viewing options

You can alter the iTunes display to enhance your musical enjoyment

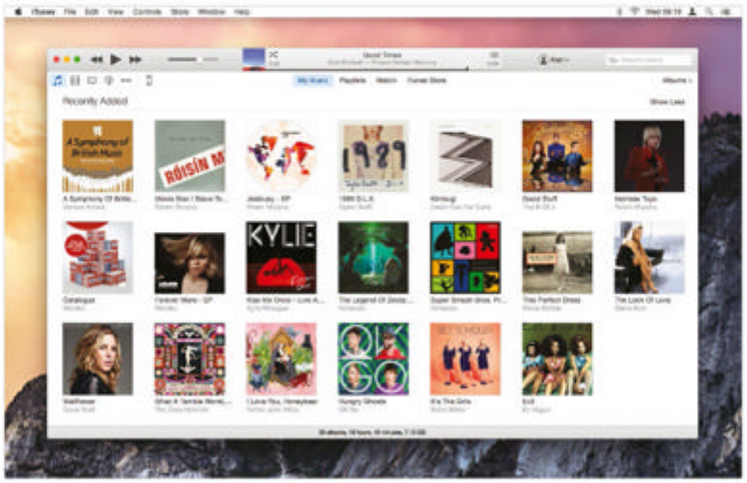
SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes or more

YOU'LL NEED
Some music already in iTunes

Over the years, iTunes has evolved from its humble jukebox beginnings to a way to manage all kinds of media, to buy music, films and other content, and to manage which content is available on your iPod, iPhone and iPhone. This has made it become quite complex and bloated, and Apple has tried to freshen its look and make it easier to use in iTunes 11 and again in iTunes 12. However, this means you have some completely new interface niceties to master all over again. Here we'll show you a few options in iTunes 12 which enable you to view your library in different ways that you might find more helpful for managing and finding things, to get a disco feel in your living room, and to control your music using the more compact and flexible MiniPlayer instead of the full window.

When viewing any type of media, click the word at the far right of the top bar (immediately below the search bar) for alternative ways to sort the items. You can view your Albums, for example, but choose Sort by: Artist so that the list of albums is arranged by artist instead of alphabetically by album name.

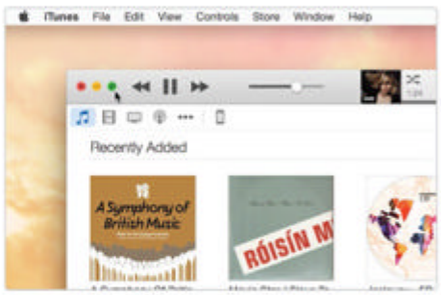


View your music any way you like: iTunes's album view makes your collection look beautiful.

iTunes 12 still supports the Column Browser (View > Column Browser > Show Column Browser), but you need to be in the Songs tab for this option to be available. You get three default columns (Genres, Artists, Albums) from which you can choose your tunes to play; change these or add more from the same menu. Click Playlists (centre of the top bar) to open a sidebar you can drag items to.

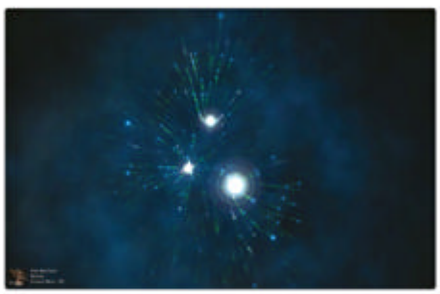
Move the pointer over an item and click the three-dot button that appears for Play and other options; right-click for many more. You can also hold ⌥ and click the + icon that appears next to a track to add it straight to Up Next.

HOW TO | CHANGE ITUNES VIEWS



1 Full-screen mode

On a Mac running OS X 10.10 Yosemite, if you ⌥-click the green button at the top-left of its window, iTunes will enlarge to fill the desktop; ⌥-click it again to return it to its previous size. To switch iTunes to full-screen mode, just click the green button or press ⌘+ctrl+F. To exit full-screen mode, use the same shortcut or move the pointer to the top edge of the screen so the menu slides into view with the green button, and click it.



2 Visualizer

Get the party started with iTunes' built-in visualizer. To turn it on, go to View > Show Visualizer or press ⌘+T and enjoy the show. It works in both standard and full-screen mode. You can change the visualizer's appearance by going to View > Visualizer and selecting one of the five styles (iTunes Visualizer is the default; this is the rather ethereal Jelly variant). To exit the visualizer, press ⌘+T again or esc.



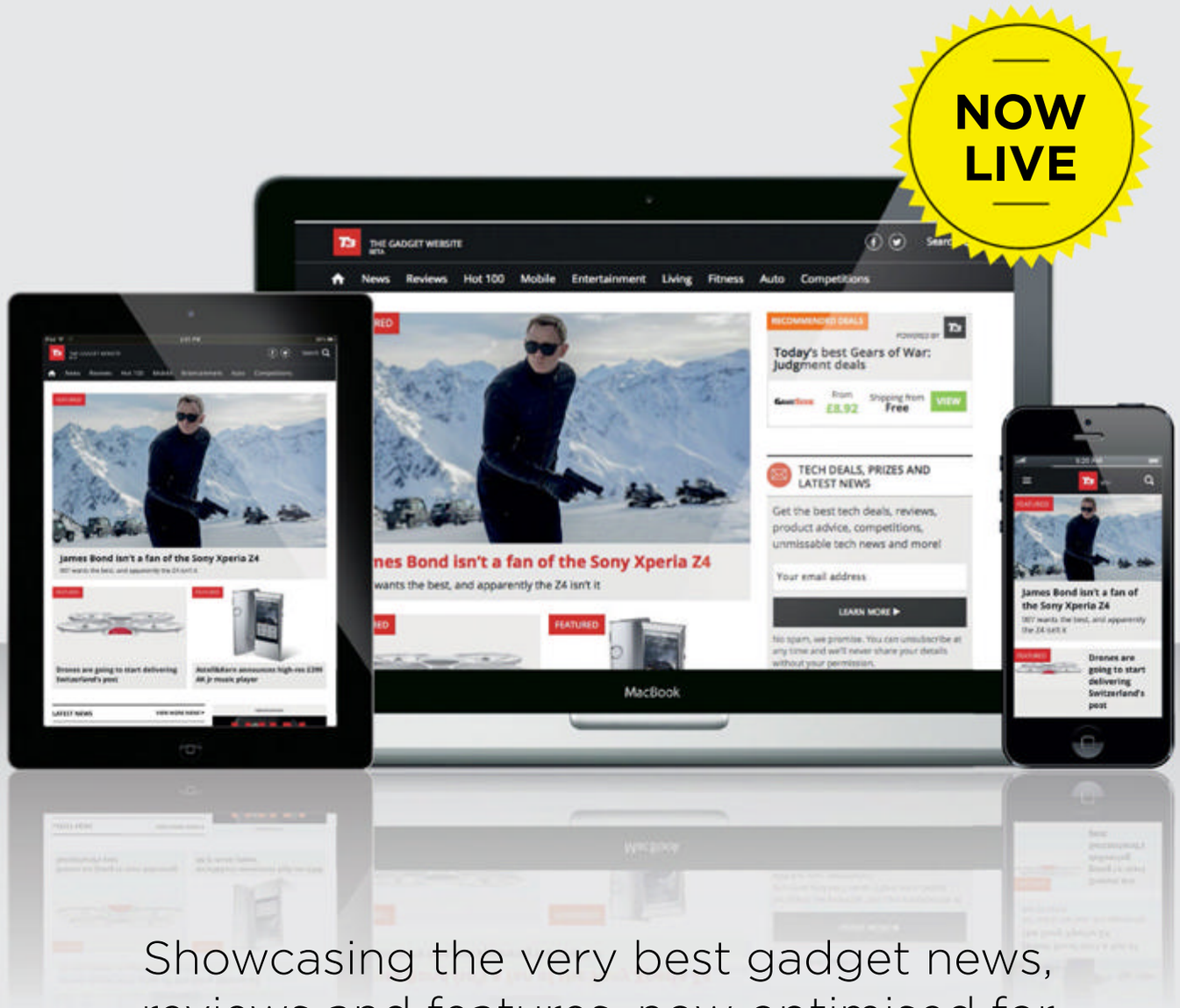
3 Use the MiniPlayer

Switch to MiniPlayer in the Window menu or using ⌘+⇧+M. Move the pointer over it to reveal playback controls. The 'X' button (top-left) returns to the full iTunes; click the icon below this to hide or show larger artwork. Click the menu icon (far right) to show or hide Up Next. Click the magnifying glass to search your library; move over a result and click its '+' to queue the track, or the '…' to its right for Genius and other options.

T3

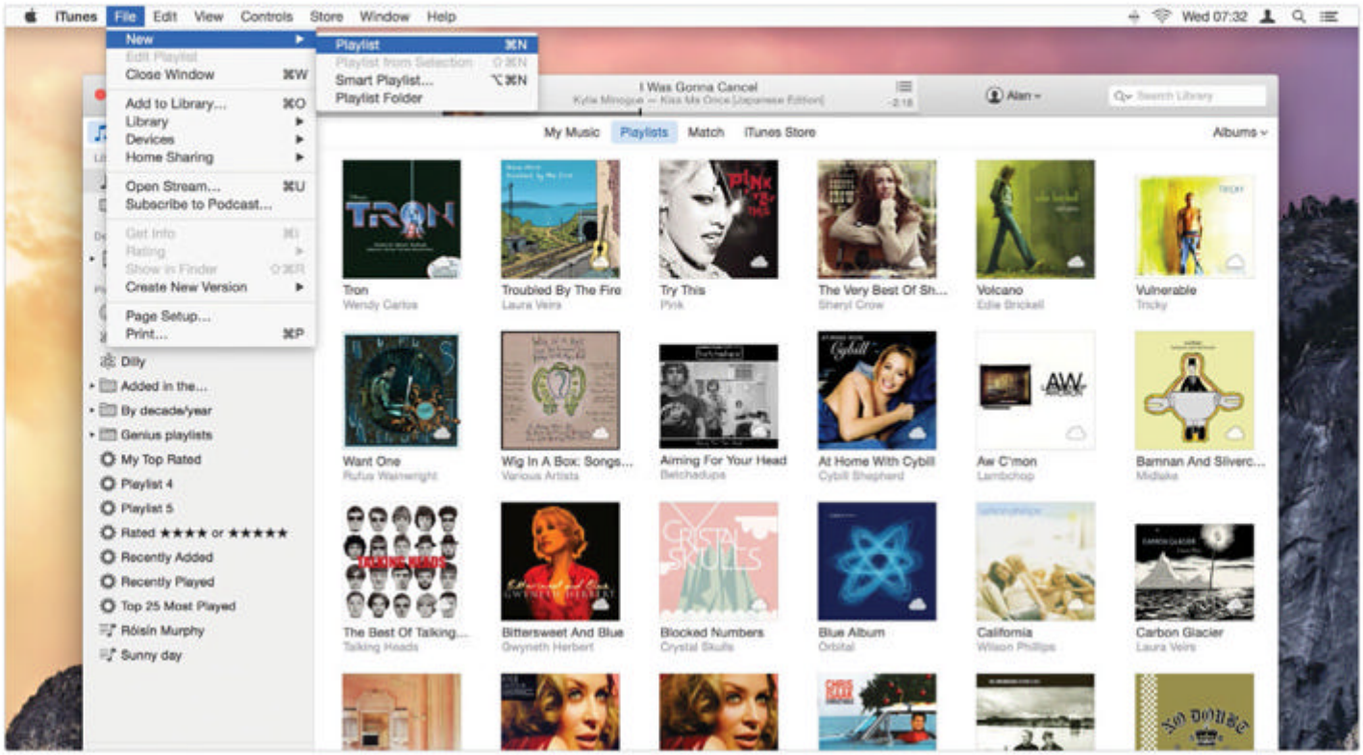
THE GADGET WEBSITE

INTRODUCING THE ALL-NEW T3.COM



Showcasing the very best gadget news, reviews and features, now optimised for any screen, anytime, anywhere.

www.T3.com



Create and use playlists

Keep your media organised and determine what gets played

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
Some music already in iTunes

The more music you collect in iTunes, the more you need a way to organise it all and find the track you want. Even if you have only a small library, you might be in the mood for a favourite artist, music style or time period. Instead of having to trawl through your tracks to find what you want, you can organise things with playlists, which you can then access in moments by clicking the music icon in iTunes' top bar and then Playlists.

Playlists come into their own when you want to do more than just listen to your music. If it won't all fit on your iPhone or iPod (or even if it will), you can use playlists to determine which tracks you take on the road with you (see page 46). If others on your home network have iTunes on their Macs or PCs, you can make it possible for them to play specific playlists that remain on your Mac (see page 64). And should you wish to write some of your music to a CD, you'll need to create a playlist to do so (see page 50).

Simple and Smart

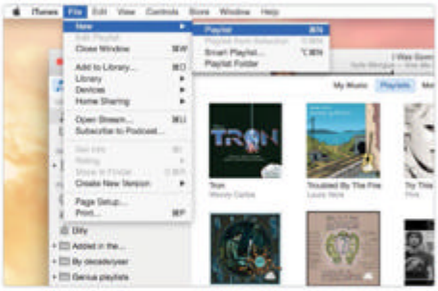
There are two main kinds of playlist. Ordinary playlists are simple lists of tracks that you manage manually, adding, reordering and removing things as you please. Smart Playlists, on the other hand, are automatically filled with tracks that match with criteria you set up in advance. You'll find some of these already created for you, including 'My Top Rated' and 'Recently Played', and you can create as many more as you want. We'll look at Smart Playlists overleaf.

There's one key thing to remember about playlists: they really are just lists. All your tracks are stored in your iTunes library; when you add tracks to playlists, you're just telling it which tracks you want it to play, not moving or copying the tracks themselves. Hence, if you delete a song from a playlist, or even delete an entire playlist, the songs it contains will remain in your library. If you delete a song from your library, however, then it will also disappear from any playlists. To completely trash a song, switch to the My Music view, select the track and press ←. (Oh, alright then, it is possible to trash a track in Playlist view: select it within a playlist, but then hold down ⌥ as you press ←. You'll be asked to confirm that you want to trash the file, not just remove it from the playlist.)

As well as syncing playlists to your iPhone, iPod or iPad, you can back them up: select one in the sidebar and go to File > Library > Export Playlist, select XML from the Format pop-up menu, pick a location for the file and click Save. The Import Playlist option restores playlists you've backed up and then removed from iTunes. To organise your playlists, click the + at the foot of the sidebar and pick New Playlist Folder, then drag-and-drop playlists onto the folder to move them inside it.

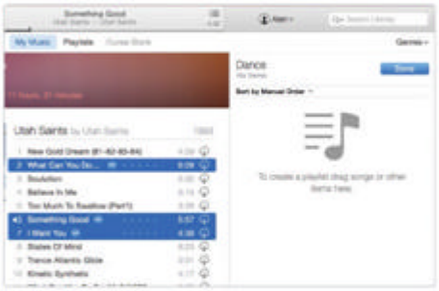
Playlists come into their own when you want to do more with your music than just listen to it

HOW TO | CREATE AND MANAGE PLAYLISTS



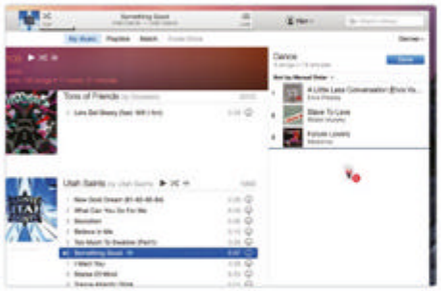
1 Create a playlist

Click the music icon near the top-left of iTunes, then press ⌘+N. Your existing playlists appear in a pane on the left-hand side, and the area to the right shows a blank playlist with its name highlighted. Enter a new name, then press ⏎. Click the name to edit it at any time.



2 Add some tracks

Click the Add To button near the top-right. Your empty playlist appears in a pane on the right, and your library's contents on the left. To add tracks to the playlist, click a song, and optionally ⌘-click additional songs, then drag and drop your selection(s) into the playlist pane.



3 Viewing options

You can change the view options (using the menu just below the search bar) to browse in different ways, and drag whole albums into the playlist. You can also type what you're after into iTunes' search bar and drag results from the list of matches it finds. Click Done to finish.



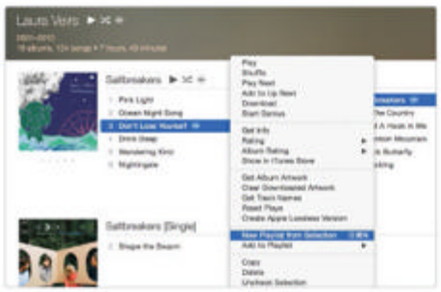
4 Other ways to add

At any time, switch to the Playlists view, select a playlist and click Add To at its top-right to manage its contents. To add items even more quickly, just start dragging one or more and the playlists sidebar will slide in from the left so you can drop your selection onto a playlist.



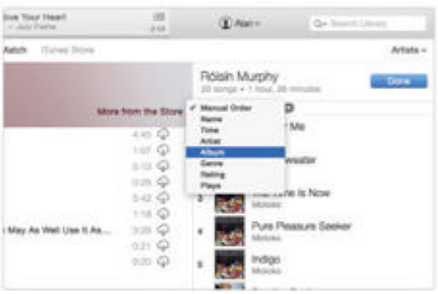
5 Add To…

Another way to add to a playlist is to select some tracks, right-click, move the pointer over Add to Playlist and select the playlist you want. Similarly, when using the search bar, move the pointer over a result, click the ellipsis next to it, click Add To and then choose a playlist.



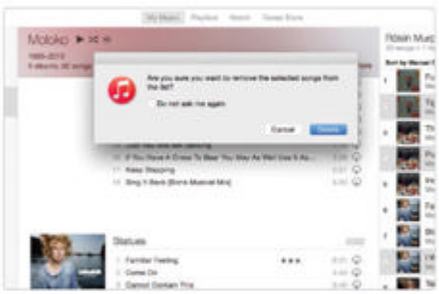
6 Playlist from selection

You can select tracks from your library or another playlist to create a new playlist with those tracks in it. Click a track, then ⌘-click on any other tracks you want to include. Now right-click and choose New Playlist from Selection. Name the new playlist, and hit ⏎ to create it.



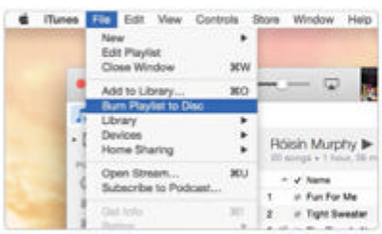
7 Editing a playlist

Select a playlist, then click Add To. In the playlist's sidebar, you can change the order in which its tracks play by dragging them up and down the list. Alternatively, click 'Sort by Manual Order' and select an attribute by which to order the list. Click the Done button when finished.



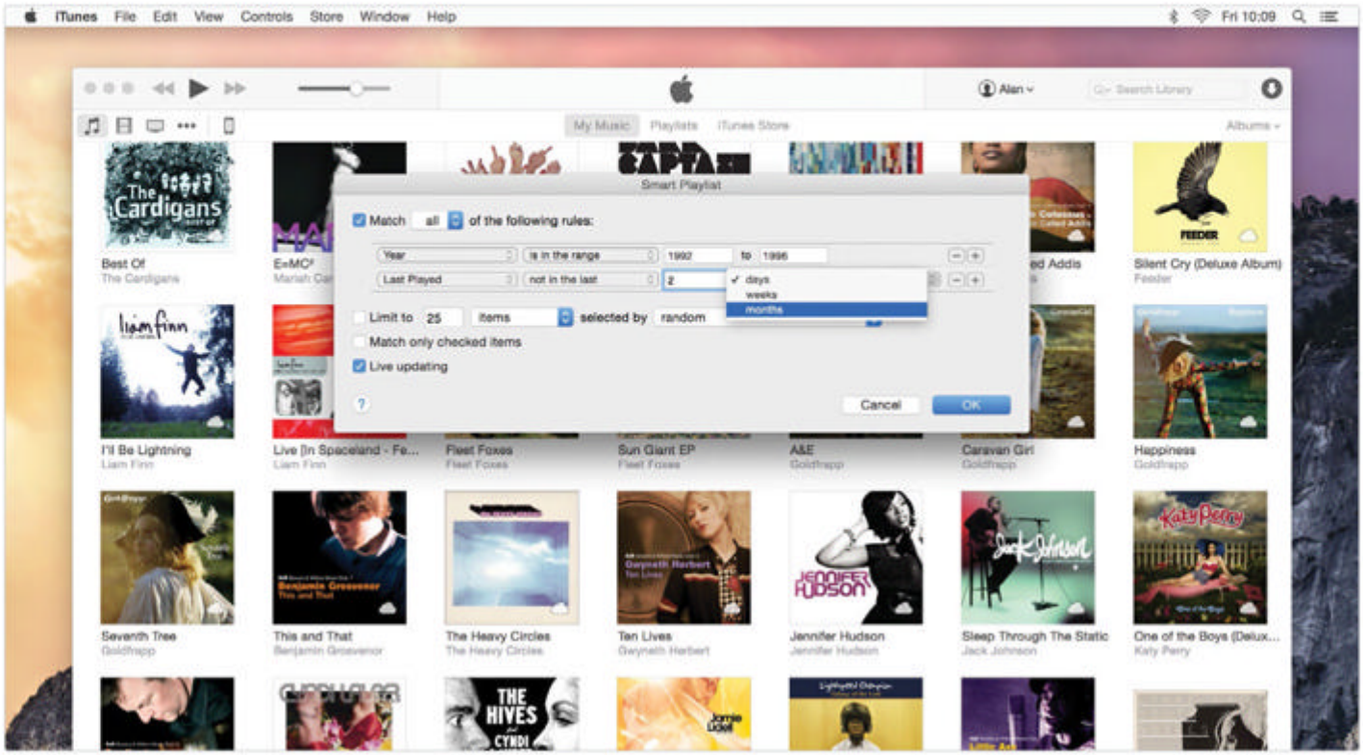
8 Removing tracks

To remove a track from a playlist, select it and go to Edit > Delete, or press ←. Remove multiple tracks by ⌘-clicking to select them all first. Removing tracks from a playlist will only remove them from the list, not from your library, as the message that pops up confirms.



BURNING TO DISC

One vital use of playlists is to burn music to disc: you can burn only playlists to disc, not tracks or albums. So, if you want to burn an album onto a CD for a party, first right-click it and choose New Playlist from Selection. See page 50 for more.



Using Smart Playlists

Do even more using playlists that populate themselves automatically

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
Some music already in iTunes

We've mentioned that there are two kinds of playlist, and we've looked at the 'ordinary' kind – lists of tracks that you manage manually. Smart Playlists are much cleverer, and potentially can do much more with much less work required from you. The principle is that Smart Playlists are automatically filled with tracks that match whatever criteria you set up. If you add tracks to your library by a certain artist or in a certain genre, any relevant Smart Playlists will automatically have those tracks added to them.

You can identify a Smart Playlist by the cog icon next to its name. When you switch to the Playlists view, you'll find some Smart Playlists already created for you, including 'My Top Rated' and 'Recently Played'. As you rate your songs or just play tracks, these playlists automatically update. To see how they work, right-click on one and select Edit Smart Playlist.

Play it smart

Usefully, you can combine a number of criteria, creating for example a Smart Playlist of songs you've rated four or five stars but haven't played in the last six months – a great way to rediscover old favourites you haven't listened to recently.

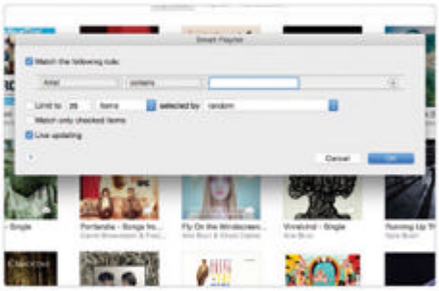
Conversely, you might have tracks you find you skip over every time they start playing. Why keep them? Create a Smart Playlist of such tracks (number of skips is greater than two, say) or zero-rated tracks, and you can then periodically select the tracks that appear in this playlist and trash them. Remember that, as we've noted, an extra key press is required to remove a track from both a playlist and your library

You might notice a playlist named 'Genius' in the Playlists panel. Its icon is different, and this is yet another kind of playlist – one that iTunes generates, based on a single song. You first need to go to Store > Turn On Genius, and make sure you're connected to the internet and signed in to the iTunes Store with your Apple ID. Next, right-click a song and select Start Genius. iTunes will compile a playlist of your songs that 'go great together' with it and start playing them.

Exactly how iTunes does this is a trade secret, but it has to do with sending (anonymous) information about your tracks to Apple, analysing your other playlists and collating all this with a huge number of other people's listening habits. As you might guess, it can be a bit hit-and-miss. If you don't like the selection of tracks iTunes compiles for you, click the Refresh button at the top-right and it will try again. If you want to save the selection, not just play it, instead select Create Genius Playlist when you right-click a track.

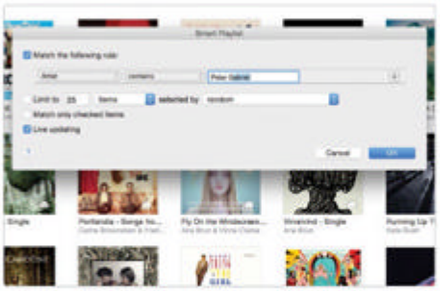
Smart Playlists are filled with tracks that match your criteria, such as ratings you've given them and the year of their publication

HOW TO | CREATE A SMART PLAYLIST



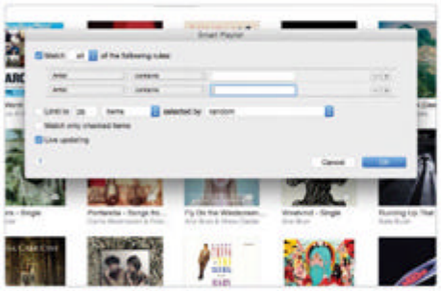
1 Create a Smart Playlist

Let's create an auto-updating playlist of tracks by a favourite artist. Go to File > New > Smart Playlist, or press ⌘+⌥+N. A window opens in which you specify the criteria tracks must match to be included. Leave 'Match the following rule' and 'Live updating' ticked.



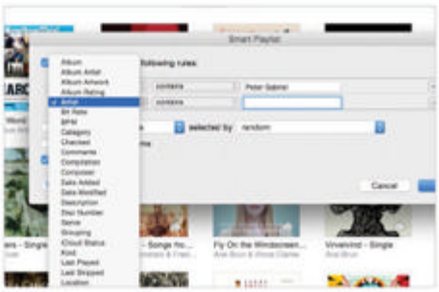
2 Specify the criterion

Make the first criterion Artist, the next Contains, then click the adjacent text field and start typing your artist's name. iTunes will auto-complete it based on track info – keep typing if it doesn't guess right. Click OK and this playlist appears in the left pane, with a cog next to it.



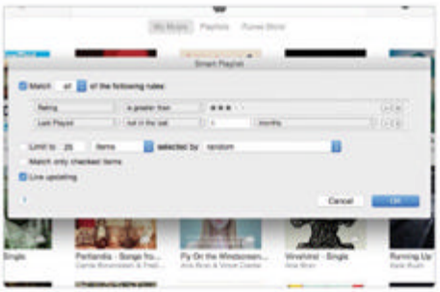
3 More complex criteria

Provided that 'Live updating' is ticked, tracks by this artist that you add to your library will be added to the playlist. Smart Playlists can do even more. Create a new one, and you'll notice a little + at the far right of the row of criteria. This enables you to add more rules.



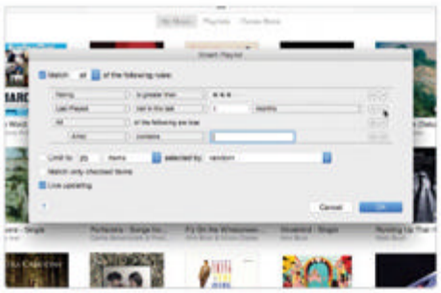
4 One or all?

Click the + and a row for a new rule will appear, as well as a new pop-up menu next to 'Match'. This menu specifies whether *all* rules or just *one* must be matched, giving flexibility to what gets added to the playlist. Click the first criterion pop-up to see your options.



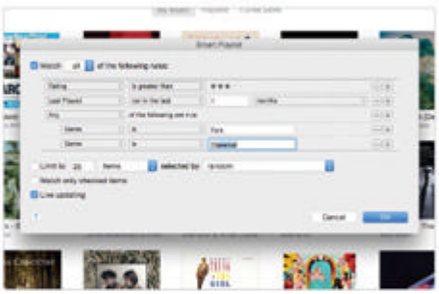
5 Combine criteria

Let's create a list of four- or five-star rated songs we haven't listened to for over a month. Pick 'Match all of the following rules'. Set the first rule to 'Rating' and 'is greater than', then click the third star. Set the second rule to 'Last played', 'not in the last' and '1 months' – don't press OK.



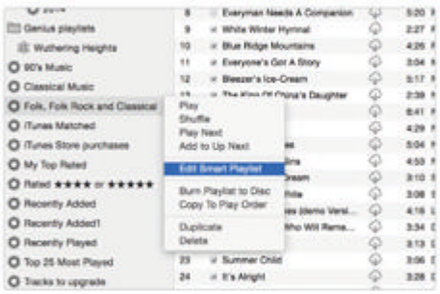
6 Nested criteria

Now for something even more subtle. Let's say we want to include only certain genres of song… Hold down the ⌥ key, and the + signs change to ellipses, meaning that clicking one will add a set of nested rules. So, ⌥-click the ellipsis button next to the last rule.



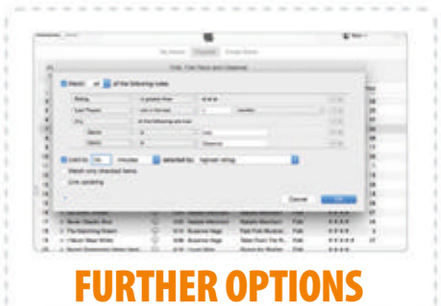
7 More specifications

Set the new rule 'Any of the following are true' and 'Genre', 'is' and 'Folk', then click the + next to that rule (don't hold ⌥ this time) and set the new rule to 'Genre', 'is' and 'Classical'. This will find high-rated songs we haven't played in a month, but only in one of the genres specified.



8 Modifying your playlist

In this way it's possible to build up very specific rules. Click OK to save your Smart Playlist and its name will be highlighted; type a new one. To modify its rules, switch to the Playlists view, then right-click the Smart Playlist in the left pane and select Edit Smart Playlist.



FURTHER OPTIONS

The tickboxes beneath a Smart Playlist's rules enable you to limit its size or duration (good for ensuring it fits on a CD), or to add only tracks marked with a tick. If 'Live updating' is off, the playlist won't update to reflect changes made to your library.

Syncing your iOS devices

If you use an iPhone, iPad or iPod, put iTunes in charge of your media

You can use an iPad, iPhone or iPod and enjoy everything it has to offer without ever connecting it to a computer. However, you might already have a Mac or PC and use iTunes to manage your songs, videos or other media. A computer's hard drive can hold much more than even the largest-capacity iOS device, and you won't always want all your movies or photos on the road with you.

It can therefore make sense to manage your media on your computer and transfer to your iPad, iPod or iPhone only the things that you want to take out and about with you. There are other benefits too:

- Faster transfer. You can re-download to your device any songs, movies, TV shows or apps you've purchased, but it will often be faster to copy them across from your computer.
- Add your own content. You can also add songs you've ripped from CD or bought elsewhere.
- Easier organisation. Creating playlists on an iPad or even an iPhone is simple enough, but you can't create Smart Playlists as you can in iTunes on Mac or PC (see opposite).

When you connect any iOS device (or several devices) to your computer, iTunes becomes the hub of everything you do. You use it for syncing media and data, organising playlists and buying content (though you can buy things on the device too). You can use it to update your iOS software if you choose not to do that directly on the device itself, and it can manage backups and help you restore your device if things go wrong.

Here are the essentials you need to know to manage your iOS device using iTunes. One key thing to note: an iOS device can be synced with only one iTunes library at a time. If you want to add content from more than one library, go to Preferences > Devices and verify that iTunes is set *not* to sync automatically (it now defaults to this, but it's worth checking).

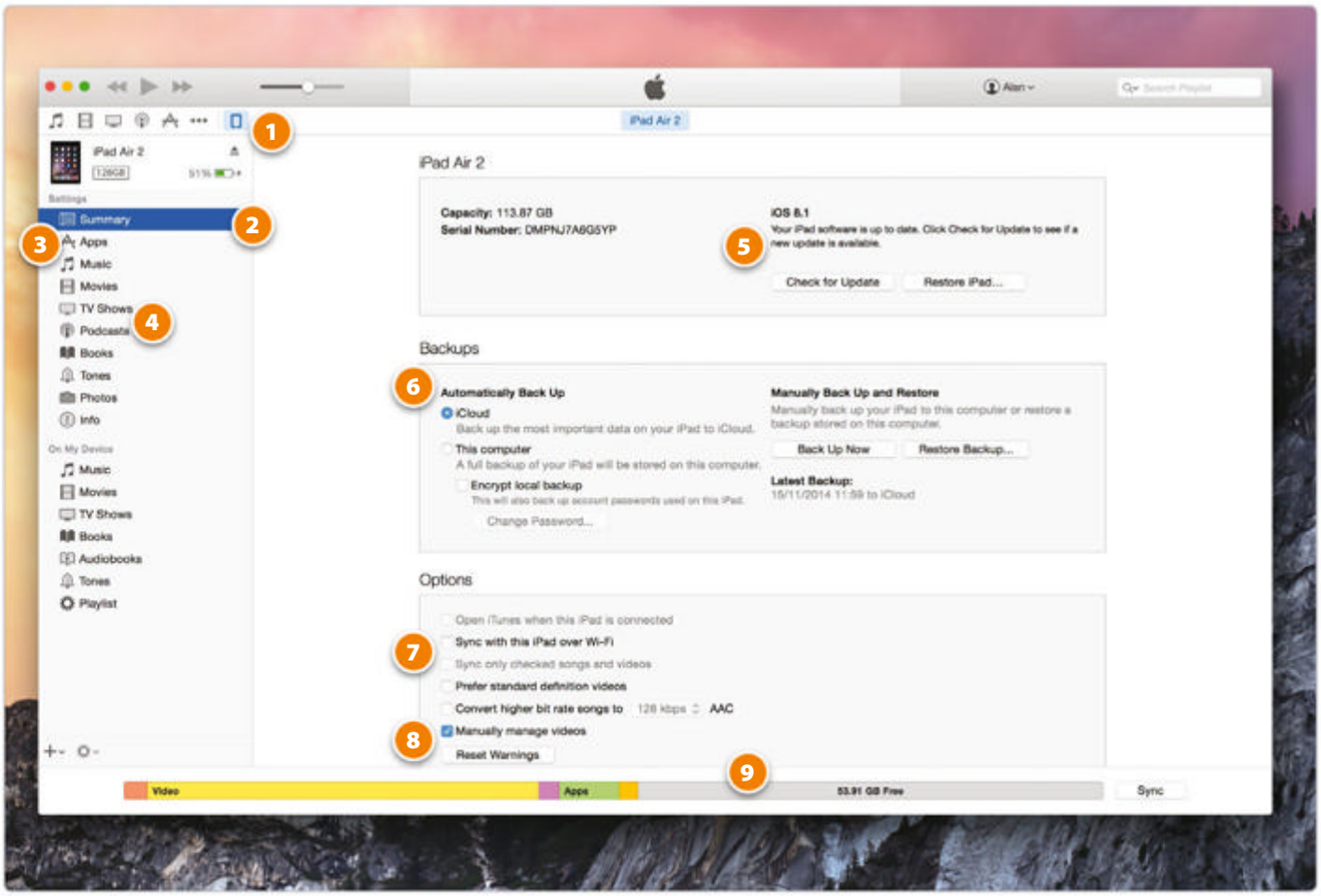
VISUAL GUIDE
SYNC YOUR iOS DEVICE

1 Your device

Connect your iOS device using the USB cable that came with it or via Wi-Fi, and click its icon at the top left. A sidebar with categories of media you can copy to the device will appear on the left, along with a Summary page that contains overall settings for the device. Click a category to choose which items of that kind are copied from your iTunes library to the device.

2 Sync your data

Set your preferences for different kinds of data and choose what you want to sync in each category. Books includes ebooks and PDFs. Info includes address books, calendars and email accounts (but not the messages



When you connect your device to your computer, iTunes becomes the hub of everything you do

themselves). If you use iCloud to sync these things, you'll simply see a message that tells you they are being synced over the air from iCloud. This also applies to music, if you subscribe to iTunes Match and enable it on your device. It makes the entire contents of your iTunes library available anywhere with an internet connection.

3 Arrange your apps

Click the Apps tab to manage your apps. The iOS apps that are stored on your computer are listed on the left, with your device's Home Screens and folders on the right. One of two buttons appears next to each app: Install means the app isn't yet on your device, so click this button to select that app for transfer to the device when you sync. A Remove button means the app is already on your device, so click this if you wish to remove the app. Click and drag the icons to rearrange their order on your device's Home Screens or folders, or move them to another Home Screen or folder by dragging them to another of the previews. Click the + icons to create new Home Screens or folders. Click Apply when finished.

4 Select what to sync

In each category, you can choose to sync all your media of that type (your entire music library, all books or podcasts, and so on) or only selected items. If you've got a lot of media, you may not have space on the device to store it all – the capacity bar at the bottom will show this – or you may just not want all your movies or TV shows on the road with you. If you opt for selected content, you can then tick the playlists, artists, albums and so on that you want copied to your device. The process is much the same for all types of media, but in some cases you can tick Automatically Include and then choose to sync, say, only those TV show episodes and films that you haven't watched yet.

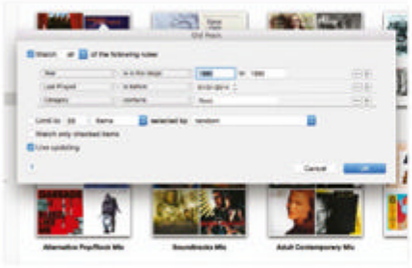


Manage your apps, Home Screens and folders using iTunes.

Create and sync Smart Playlists

One big strength of iTunes on your Mac or PC is the ability to create Smart Playlists. As we've seen (page 44), these are not just fixed sequences of songs, like the playlists you can create in the Music app on your iPad or iPhone, but they can organise your songs for you according to criteria you preset. Feeling nostalgic? Create a playlist of songs from a certain decade, such as the 80s. Huge collection? Make a playlist that shows the last 50 songs you added to your library, or songs you've added but haven't played yet.

You can even combine multiple criteria, creating for example a Smart Playlist that finds songs you've rated four or five stars but haven't played in the last six months – a great way to rediscover old favourites you haven't played for a while. The best thing about Smart Playlists is that they update automatically as you add songs that match the criteria, and they'll be refreshed on your iPad, iPod or iPhone the next time you sync it.



Set up Smart Playlists to choose your tunes automatically.

5 Update or restore

These buttons appear if you connect using a USB cable, but not over Wi-Fi. Click Check for Update to go online to see if there's a newer version of iOS available (or check directly on your device by tapping Settings > General > Software Update). The Restore button is a last resort if you're having problems: it will wipe the device and offer you the choice to start afresh (so you'll lose all the documents and data you've created) or restore from a backup you've previously made. On the device you can go to Settings > General > Reset to wipe it if need be, then set up again and opt to restore from a backup, selecting either a backup in iTunes on your computer or an iCloud backup.

6 Backup options

Choose whether the data and settings from your iOS device get backed up on your computer every time you sync, or directly to Apple's online servers via iCloud. Note that your apps themselves aren't backed up, because you can download them again for free (tap Updates > Purchased in the App Store) or sync them from your computer if stored there (as explained in step 3 above). If you've synced music and other media from your computer, these aren't backed up either – it's assumed you can re-sync to your iOS device. For more on what gets backed up, see Apple's list at http://bit.ly/itunesbackups. Note the option to password-protect the backup on your computer – don't forget the password or it will be inaccessible!

7 Sync over Wi-Fi

Want your device to sync wirelessly with iTunes on your Mac or PC? First connect it using the USB cable, and go to Options under the Summary tab. Tick 'Sync with this device over Wi-Fi' and click Apply. Now click the eject symbol next to the device's name, and unplug the cable once it disappears from iTunes. From now on, it will sync wirelessly with the computer whenever they're connected to the same Wi-Fi network and iTunes is open on the computer. If it doesn't appear in iTunes, quit iTunes and relaunch it, or restart your device.

8 Go manual

If your iOS device is set to sync with your iTunes library, you can drag individual songs or playlists from the iTunes library to your device, but you can't add songs from any other iTunes library or even remove songs (unless you unsync the entire playlist, artist or album). The solution is to switch to manual management. In the Summary tab, go to Options and tick 'Manually manage music and videos'. To add items, click a category under 'On My Device' in the left-hand pane, then click the Add To button (top right) and drag items from the left-hand pane (which shows your library) to the right-hand pane. Click Done when finished. To remove an item, click a category under 'On My Device', untick the unwanted item, then click Sync (bottom-right).

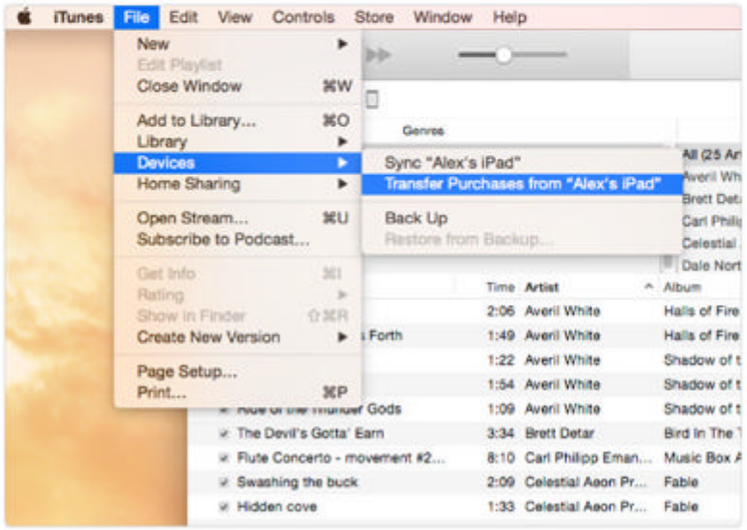
9 View free space

As you make changes to what's synced to your device, you'll see the coloured capacity bar at the foot of the iTunes window adjust in real time to show you how much space you've got free, or if you've overshot. Click Apply to save your choices if an Apply button appears, and then click Sync to start copying your chosen media to the device.

Tips for better syncing

There are a few tricks to managing your iOS device with iTunes…

When the first iPod was introduced, it was simply a portable player that enabled you to take your music on the road with you. Hence, it made perfect sense to manage the device and its contents from within iTunes. As iOS devices evolved, though, from the simple iPod to the iPhone and then the iPad, they became much more powerful and more independent. As we've noted, it's now perfectly possible to use one without ever connecting it to your computer. If you do so, though, it's iTunes you'll use to manage it, just as before. So here are some tips and tricks for getting it all working smoothly…



If you update content on your iOS device directly, this won't always sync back to your computer. The solution is to manually transfer purchases back to iTunes from the File menu.

Prevent your devices from attempting to sync

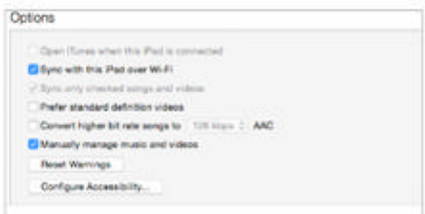
In previous versions of iTunes, an iOS device would by default attempt to sync as soon as you connected it to your computer, which was annoying if you were connecting it to a different computer (to charge it, for example) or if it was synced with a different iTunes library (such as one belonging to another user of your computer). You did get an alert asking whether you wanted to erase the device and sync it with the current iTunes Library, but it was an extra step to decline this all the time (and it was hard to avoid that moment of panic before you did so...).

In iTunes 12 Apple has very sensibly changed the default: go to iTunes > Preferences (Mac) or Edit > Preferences (Windows), click the Devices tab and you'll see that 'Prevent iPods, iPhones, and iPads from syncing automatically' is on by default. If you opt to untick this so that your device does sync automatically when you connect it, you can prevent other iOS devices from attempting to do so by holding down

Managing media manually

If you want more control over the media on your device, you can manage music, movies, TV shows, podcasts and iTunes U materials manually. This is useful if your entire library can't fit on your device, or you just want to choose what you take on the road with you.

To switch to manual management, open iTunes, connect your device and click its name if necessary. Click Summary, scroll down and under Options tick 'Manually manage music and videos', then click Apply.



While it might sound time-consuming, manual management gives you more control over your music and other media.

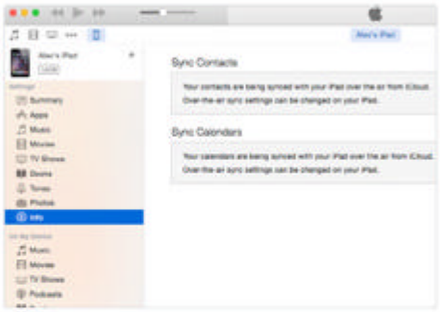
You might see a message that your device is synced with another library. This means that you've used a different computer to sync your device in the past, and iTunes can't sync without first erasing and replacing all iTunes content on your device. (An iPhone cannot sync with more than one library. With an iPad or iPod you can add music, but not video or other content, from multiple libraries.)

Note also that you can't switch to manual management if iTunes Match is activated on the device.

Now to add items to the device, simply start dragging from any view and a sidebar will pop open on the left; drag the item onto the name of your connected device and it will be copied over into the correct category. In playlists view things are a little simpler, because the sidebar stays open. Click a heading under On My Device, then click the Add To button at the top right of the display. The left-hand panel shows your library, the right-hand panel your device. Simply drag items from the left-hand panel to the right-hand one to add them.

If you change your mind about any item, click on it in the right-hand pane (which shows what's on the device) and press ⌫. This removes that particular selection from the device, but doesn't delete it from your iTunes library.

Note that switching back to auto-syncing later on might remove some of the media you've added. Note also that you can't manually sync photos (though you can select folders of photos to sync) or data such as contacts, calendars and bookmarks.



What not to sync – in iTunes 12 you now cannot set data to sync via iTunes if it is already synced via iCloud.

⌘+⌥ as you connect the device to your computer, and keep these keys held down until the device appears in the iTunes window.

What not to sync

Under the Info tab in iTunes, there's a range of data you can sync to your iOS device, including calendars and contacts. If you use iCloud to keep these things in sync, then iTunes 12 will helpfully tell you so, and you won't get the option to sync them via iTunes. This is a great improvement – in earlier versions it was possible to set them to sync via both iTunes and iCloud, which simply meant you were likely to up with duplicate data on your device.

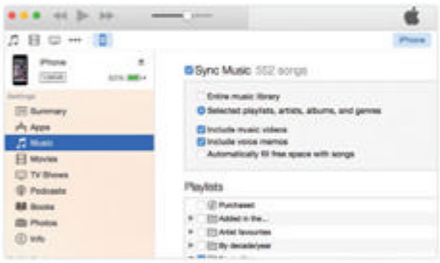
Sync back, too

Another quirk of iTunes sync is that, depending on your settings, content you download on your iOS device doesn't always get copied to your computer when you sync – in particular app updates. To be sure that such content properly makes its way to iTunes on your PC or Mac, go to the File menu or right-click your iOS device's name and choose Devices > 'Transfer purchases from [device name]'.

Optimise media to sync

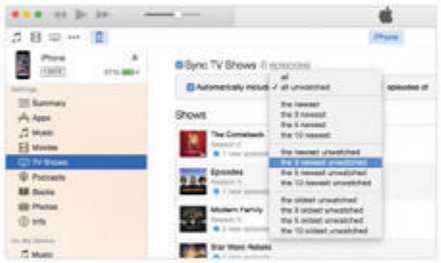
When you sync music and movies to your iOS device, you may want to shrink them to save space. (The device will scale standard movies down to display them on its smaller screen anyway, so there's no reason to fill up its limited storage space with the huge original-resolution file.) On the Summary screen in iTunes for the device, under Options, you can opt to convert higher-bit-rate songs to smaller AAC files or to 'Prefer standard definition videos'. Movies can be converted to device-specific formats using the options in iTunes' File > Create New Version menu, or you may prefer the more extensive options in a third-party utility such as Handbrake (free from handbrake.fr). This gives you more control over parameters such as size and quality, but usually involves an extra step: saving the optimised movie as a new file and re-importing it into iTunes before syncing.

HOW TO | MANAGE SPACE ON YOUR iPHONE



1 Control the music

If you manage your iPhone using iTunes on your computer and your music library is set to sync to your device in its entirety, do you really want all that content on there? If not, go to the Music tab in iTunes and under Sync Music untick 'Entire music library'. Instead, tick 'Selected playlists, artists, albums…'



2 Manage other media

If space is a problem, you probably don't want to enable 'Automatically fill free space with songs'. Now turn to the other media tabs, and tweak the settings so you're adding only what you want on your device. Under Movies and TV Shows, you can specify that once you've watched something, it will be deleted.



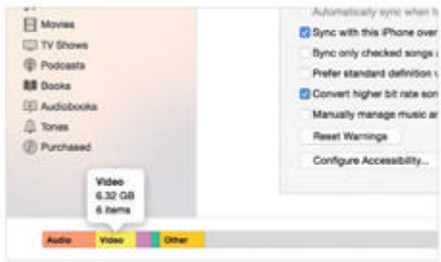
3 Clear unwanted apps

Switch back to the Apps tab and click the Sort by… button above the list of apps. Set this to Sort by Size to view the largest apps first. Uninstalling an app is as simple as clicking the Remove button next to its name. Do this and the button changes to Will Remove. Repeat for other unwanted apps before clicking Apply.



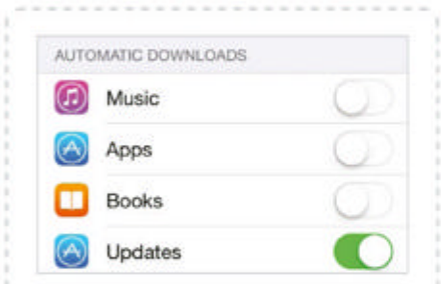
4 Make songs smaller

To fit more content on your iPhone, you can choose to sync audio tracks at lower quality. On your iPhone's Summary screen in iTunes, under Options, tick 'Convert higher bit rate songs to…' and select an option in the menu. A lower bit rate means less space taken up; the sound quality should still be acceptable.



5 Assess the results

As you make changes to what's synced to your iPhone, you'll see the coloured capacity bar at the foot of the iTunes window update in real time to show you how much space you've still got free, or whether you've overshot. When you're happy, click Apply to apply all the changes you've made to your device.



AUTO DOWNLOAD

If space is short on your iPhone, go to Settings > iTunes & App Store and disable Automatic Download of all your app, music and book purchases. Instead, you can tap Purchased and download the items you want on that device individually.

Burn CDs and print inserts

Save playlists to CD and make your own customised album sleeves

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
A built-in or external CD/DVD writer, a blank audio CD-R (or DVD-R), a printer

When you've imported your collection of old music CDs into iTunes, it might seem a bit odd to think about doing the reverse and burning your digital music files onto CD. Sometimes, though, this is very useful – for example, to play your songs in a car that lacks Bluetooth or a suitable socket to plug your iOS device into. The advantage over using the original CDs, of course, is that you can pick and choose the music you want on each disc.

In iTunes, it's easy to produce your own compilation CDs: create a playlist containing the tracks you want, then right-click it and select Burn Playlist to Disc, choose the settings you want and click Burn. Of course, you'll need a drive capable of burning discs – most Macs sold today don't include one, but you can buy an external one that connects over USB for about £20. Note that you must create a playlist in order to write tracks to a disc. See page 42 to find out about making playlists.

Burn, print and play

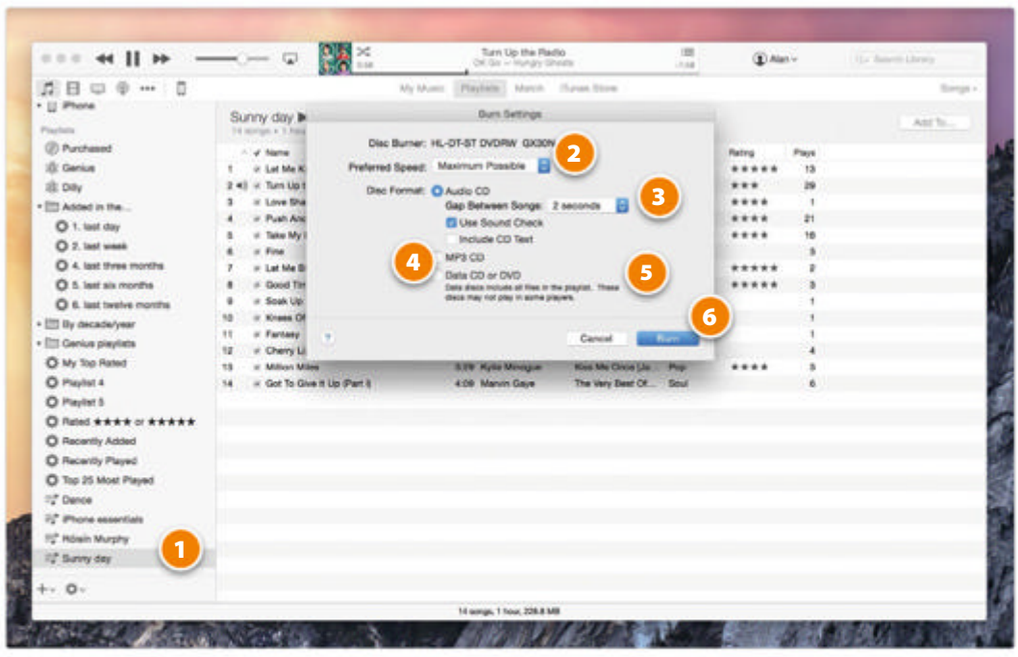
All tracks sold through the iTunes Store today can be burned to disc as many times as you want, but if a playlist includes older purchases protected with DRM (Digital Rights Management), it's limited to seven times. How many tracks you can include depends on the blank disc's format: a standard 650MB audio CD-R can hold about 70 minutes of music and will play in most CD players; a DVD-R can hold about 4.7GB, but DVDs you burn from iTunes won't play in DVD players, only on computers. (In addition, while you can include video purchased from the iTunes Store on a disc to play on your computer, iTunes can't write videos in a format that will work in a DVD player connected to your TV.)

Once you've created your CD, how about printing a CD cover, complete with album artwork and track listing? The printing options in iTunes are fairly basic, but at least they enable you to print CD covers or lists of songs, arranged either alphabetically or by album. Naturally, if you want to print the album artwork you'll need to have this already stored along with your songs in iTunes. This is not a problem for tracks bought from the iTunes Store – the cover artwork is included with the file you download. See page 34 for more on artwork.

There's no option in iTunes itself to create or print your own artwork for the cover of your custom CD, nor any way to print a track list onto the CD itself, even if you have a printer that is able to print onto discs. There are a couple of custom options, however, so read on to learn what else is on offer.

VISUAL GUIDE | BURNING A PLAYLIST TO DISC

What settings to expect when you write media to a CD or DVD



Pick a playlist

1 In iTunes' top bar, click the music button, choose the Playlists view, right-click on the one you want to put on a disc, and select Burn Playlist to Disc.

Burn speed

2 To minimise write errors, some people recommend burning at one or two speeds slower than your drive's maximum.

Disc options

3 Select the appropriate format for the music player in which you'll play the disc. Audio CDs can have a uniform gap inserted between all tracks. You can tell iTunes to include track information for players that can read and display it. Finally, Sound Check normalises the volume of tracks so they play at a consistent volume.

MP3 discs

4 If your selected playlist includes tracks in AAC format (such as tracks from the iTunes Store), don't select MP3 CD.

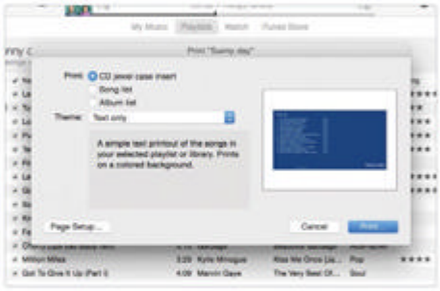
Data discs

5 A data CD or DVD is intended only for backup purposes. It's not suitable for playing your music back on a CD player.

Burn and test

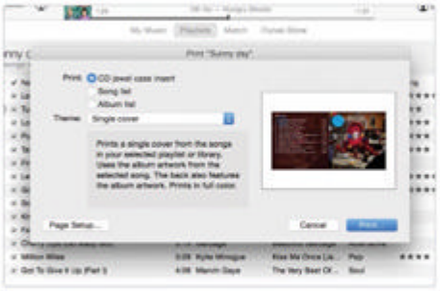
6 When you're happy, click Burn. When the disc is ready, test it in your player; iTunes doesn't always detect errors.

HOW TO | PRINT A TRACK LIST OR CD CASE INSERT



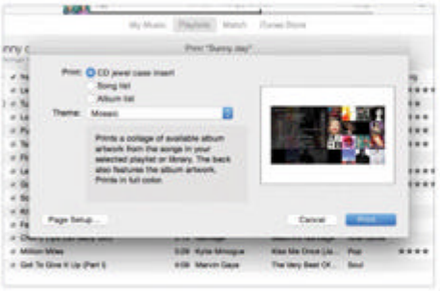
1 Print a CD case insert

Click the playlist you've burned to disc and if you want to use a particular album cover's artwork, click a track from that album in the track list pane. Now go to File > Print. Let's start with the first option: CD jewel case insert. Click the Theme pop-up menu to view its options.



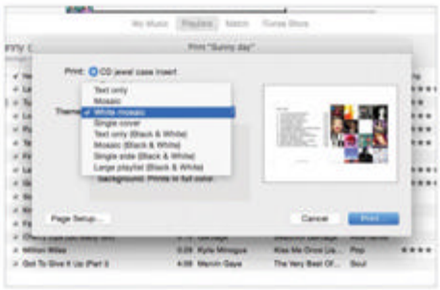
2 Choose a theme

Select a theme and it's described in the pane below, with a preview to the right. If you choose 'Single cover', the front of the insert will display the album cover from the track you selected in step 1. The back of the insert will list tracks over a faded version of the cover.



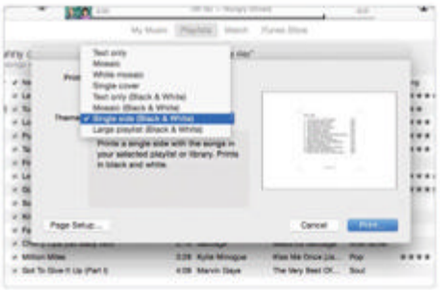
3 Greatest hits

Select a mosaic option and the front of the insert will be a collage of various album covers for songs in the playlist (note: you can't customise the design). The back lists the tracks against a faded mosaic or white, reflecting your choice of 'Mosaic' or 'White', respectively.



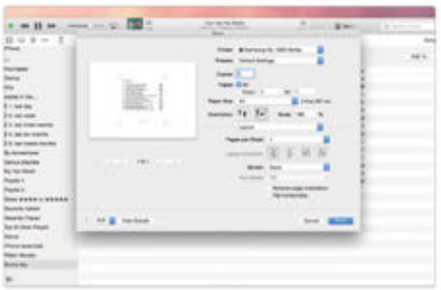
4 Try the options

Depending on the artwork, a pictorial background might make the track listing hard to read. If you find this a problem, 'White mosaic' gives you the best of both worlds. Try other options, using the descriptions and previews to decide which theme is most suitable.



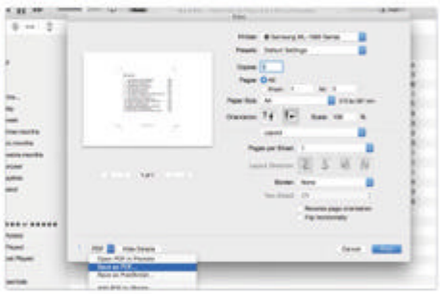
5 Song or album lists

Instead of a case insert, you can print a song list with the name, length, artist and album for each track in the selected playlist or library. However, if the playlist is very long, not all tracks will be listed; the maximum is 135 tracks on a double-sided insert if you choose 'Large playlist'.



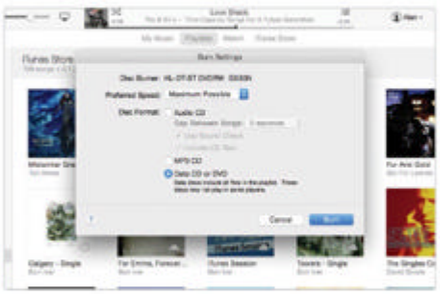
6 Print options

When finished choosing options, click the Print button and you'll see your operating system's usual printer settings, where you can configure details such as number of copies to print, paper size and so on. The options here will vary according to the printer you're using.



7 Save as PDF

Thanks to OS X's built-in PDF support, you can also save your insert as a PDF. The text in these PDFs is searchable, so by archiving a copy of all your inserts in a folder, you can use Finder to search only within that folder, enabling you to quickly work out which disc you want.



8 Long playlists

When it comes to writing a playlist that won't fit on a single disc, iTunes will write as many tracks as it can to one disc, and ask for more discs until all tracks in the playlist have been written. If you chose to write discs as Audio CDs with CD Text, only the last disc will include it.



CD CASE INSERTS

If you're printing a CD case insert, make sure you print it at full size to ensure it fits the jewel case properly. iTunes includes crop marks on its printouts; cut the insert to size with scissors or a scalpel and a ruler – but in the latter case, remember to use a cutting board, not your best furniture!

Enjoy other content

Discover how to access podcasts, books, internet radio and even ringtones

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
iTunes 12 for Windows or Mac, an iOS device (optional)

Whatever you have to say, the internet has made it incredibly easy to get the word out. Podcasts – audio or video shows that you download and listen to or view on your device – have blossomed in the past several years, and they range from highly-polished, professionally-produced shows financed by large corporations to more humble offerings from Joe Amateur sitting in a bedroom with a PC, a microphone and something important to say.



There's a vast range of podcasts available, some made by amateurs and others professionally-made.

The range of podcasts is stunning, from mainstream to niche, and in audio and video formats too

These days, the range and number of podcasts is truly stunning and, although more popular subjects such as football are covered by numerous offerings, you are almost certain to find something that fits the bill no matter how niche you think your interests may be: simply click the Podcasts icon near the top-left (click the three-dot ellipsis button first if it's not displayed) and then click iTunes Store. While some podcasts are plain old audio, there are plenty of video podcasts to choose from. The TEDTalks video podcast and NASA ScienceCasts are a great start. Or, if those sound a bit too 'informative' for your tastes, just scroll down to browse specific subject areas, or select a category such as Comedy or TV & Film from the pop-up menu (which by default shows 'All Categories') on the right. You can search for new podcasts or see what's popular and get previews to try them out before you download an episode or subscribe. Just like songs, podcasts can be organised in playlists.

Other content

iTunes has plenty more to offer; you can also download audiobooks and stream internet radio stations. Click the ellipsis icon (top-left), then Audiobooks, which include downloads from audible.co.uk as well as the iTunes Store itself.

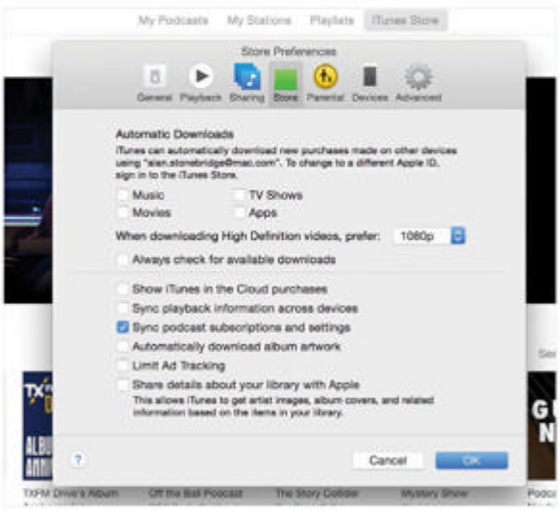
The Tones item lists ringtones already in your iTunes library. You can purchase ringtones and alert sounds by opening the iTunes Store on your iOS device and tapping More > Tones. (You can use iTunes to sync these or back them up.)

Finally, the Internet Radio category contains links to take you to many stations worldwide. You can make shortcuts to favourites – many BBC stations are available – by dragging one to open the playlists sidebar and then dropping it onto a playlist.

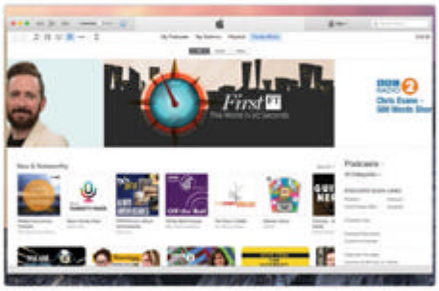
If you use these kinds of media often, click the ellipsis button, then Edit, and tick any media type you want to add to the collection of buttons in the top bar, so it's always just one click away.

Subscribe once, listen anywhere

Apple also provides a podcasts app for iPhone, iPod touch and iPad. When you first go to the podcasts part of your iTunes library (on a Mac or Windows PC), iTunes offers to sync your podcast subscriptions and settings to iCloud, and from there to iOS. If the response you gave is not is what you would choose now, go to iTunes > Preferences > Store and click the item labelled 'Sync podcast subscriptions and settings' to toggle its setting.

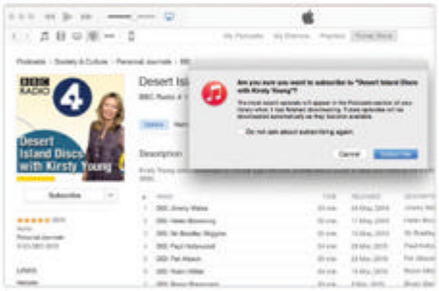


HOW TO | ENJOY PODCASTS, AUDIOBOOKS, INTERNET RADIO AND TONES



1 Browse for podcasts

Select Podcasts at the top-left of iTunes, then click iTunes Store to the right. Promoted podcasts are listed at the top, and noteworthy ones are below. Scroll down for more highlights, or click All Categories to the right to choose a category. Click a podcast to see more about it.



2 Preview and subscribe

You'll see a list of all available episodes in that podcast series. Move the pointer over an episode and click the play button that appears to listen to it, or click Get to download it. Clicking Subscribe on the left tells iTunes to download the latest episode and all future ones.



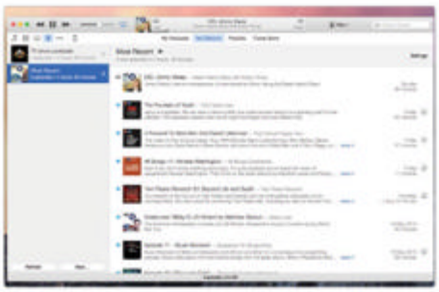
3 Manage podcasts

Click My Podcasts in the top bar to see your subscriptions, then Defaults at the bottom-left to decide things like how many episodes are automatically downloaded. Override these for individual podcasts by right-clicking one in the left pane and then clicking Podcast Settings.



4 Unsubscribe or delete

With a podcast selected on the left, you can switch between unplayed and all episodes (Feed) at the top-right. To delete a downloaded episode, right-click it and choose Delete. To end a subscription, right-click its podcast in the left pane and choose Unsubscribe Podcast.



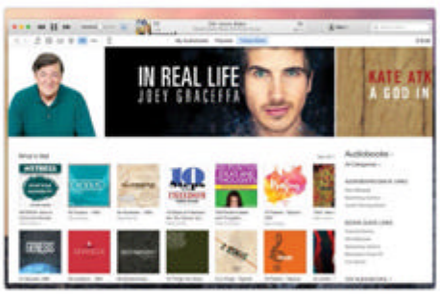
5 Make stations

Dragging an episode enables it to be added to a playlist, which is useful for syncing to older iPods. On your Mac and iOS devices, you might prefer to build stations to catch up on the latest episodes of podcasts, much like a radio station curates things. Click My Stations to start.



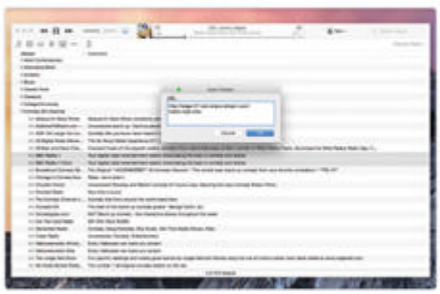
6 Choose what to hear

iTunes provides a Most Recent station for you. Select it, then click Settings at the top-right to see the rules that decide how many episodes it plays and from which podcasts. Click New at the bottom-left to curate your own station – perhaps to listen to shows with a similar theme.



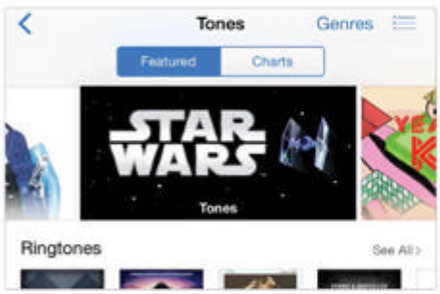
7 Audiobooks

When looking to purchase audiobooks, you can hear an excerpt in iTunes by clicking Preview. If you're signed up with audible.co.uk, you can also import purchases from there into iTunes – simply download the file and then double-click it to open it in iTunes.



8 Internet radio stations

Adding radio stations to a playlist makes them easier to find than in iTunes' index. With the address of an unlisted stream (in a suitable format: http://apple.co/1HuMXt4), go to File > Open Stream, and right-click where art usually appears in the status area to add it to a playlist.



9 Tones

You can purchase ringtones only through the iTunes app on an iOS device (tap More, then Tones). That part of store doesn't appear on a Mac or PC, but tones you purchase are copied to your computer when your iOS device is synced. Back them up – they're not redownloadable.


iTunes File Edit View Controls Store Window Help
Patrick
My Music Playlists Match iTunes Store
Purchased
Patrick
Alan
Emma
All Not in My Library
Music Films
Albums Songs
Recent Purchases
Aimee Mann
Alison Limerick
Alyson Williams
Ane Brun
Annie
Another Level
Arrested Development
Beats International
Belinda Carlisle
Ben E. King
Ben Lee
Beth Rowley
Blackstreet
Blink-182
Bliss
Bliss feat. Ane Brun
BLUE BOY
Blue Pearl
Bomb the Bass
Bon Iver
Boots Randolph
Hairless Toys
Róisín Murphy
Jealousy - EP
Róisín Murphy
Catalogue
Moloko
Forever More - EP
Moloko
x (Deluxe Edition)
Ed Sheeran
Jet Set Radio (SEGA Original Tracks)
Various Artists
Skirt - EP
Kylie Minogue
RISING
4: John Paul George Ringo - EP
Various Artists



Advanced iTunes

Move on to streaming, sharing and managing your library

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Use AirPlay to enjoy your media content

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Use your iOS device as a remote control

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Play iTunes material on your MP3 player

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64 **Share your iTunes content**
Instead of copying content, share and sync

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Up to six people can share iTunes' purchases

68 **Set up Family Sharing in iOS**
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Declutter and manage your library

74 **Automate iTunes**
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88 **Expert tips for iTunes 12**
Top tricks for getting the most from iTunes

Stream music and video

Use AirPlay to enjoy your music and videos on other devices

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
Wi-Fi network, AirPlay speakers or Apple TV

When you want to take your music or movies on the road with you, the portability of your iPad or iPhone makes it the ideal entertainment device. But what if you simply want to hear your music – whether it's on your Mac or your iPhone – through a proper set of speakers, or watch your movies on your large-screen HDTV? It's simple and seamless, thanks to a technology called AirPlay, which is built into your Mac and iOS devices.

AirPlay sends audio or video via your Wi-Fi network to any compatible speakers or video receivers such as the Apple TV. Depending on your setup, you can even play your music on multiple sets of speakers in multiple rooms. All you need is a set of speakers or a video receiver with the right hardware built in. Note that AirPlay is not the same as Bluetooth, and the two are not interchangeable – you'll need specific AirPlay-enabled kit to use it.

On your Mac, iTunes will automatically detect compatible speakers on your Wi-Fi network and display the AirPlay icon next to the volume slider at the top-left of the iTunes window (see page 38). Simply click it and select the speakers on which you want your music to play.

With an iOS device, first check that your device and the receiver are connected to the same Wi-Fi network. You can see which your iPhone or iPad is connected to tapping Settings > Wi-Fi. Exactly how you connect the receiver to the same Wi-Fi network varies from device to device; the receiver's instruction manual will guide you through the process (most are online if you can't find the paperwork).

With both devices connected to the same Wi-Fi network and the receiver switched on, your iPhone or iPad should detect it automatically. Now all you need to do is start your media playing, swipe upwards from the bottom of the screen to open Control Centre, tap AirPlay and select the receiver you want to play your media on. It's that simple! We'll walk you through the few little niceties on the facing page.

APPLE TV AND STREAMING

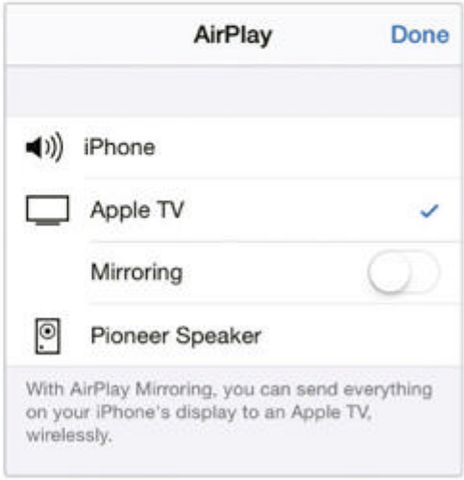
Apple TV is Apple's £59 / $69 device for connecting an HDTV or speakers to your wireless network – for details see page 118 and http://bit.ly/HzMYUA. If you want to stream or mirror from your iPhone to your PC or Mac, though, consider AirServer – see page 126.

AirPlay Mirroring

As well as streaming audio and video to a receiver device, iPads and iPhones can perform what's called AirPlay mirroring, where the entire content of the screen is output to a video receiver such as the Apple TV. This means you can browse the web and show others what you're looking at, for example, without everyone having to crowd around your iPhone.

You can also show any app on a large screen, and one of the most exciting uses for this is the ability to mirror games. Depending on how they've been configured, some games enable you to use your iOS device as a controller while displaying the action on the big screen via your Apple TV. Others provide extra information on your iOS device's screen – in the case of MetalStorm: Online, for example, you view detailed airplane controls and information on the screen while flying a plane. Other games, such as Real Racing 3, have a split-screen mode, enabling you to play against a friend, using separate iOS devices as controllers. It's the future of gaming!

How to use AirPlay mirroring on your iPhone



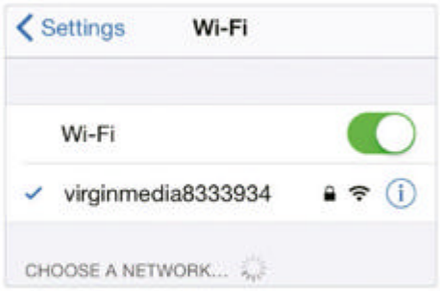
1 Screen to screen
Whatever you're doing on your iPhone or iPad, you can display the contents of its screen on your large-screen TV via an Apple TV. To get started with AirPlay mirroring, swipe upwards to open Control Centre.

2 Select your Apple TV
Tap on AirPlay, above the bottom row of buttons in Control Centre. Provided that your Apple TV is switched on and connected to the same Wi-Fi network, you'll see it in the list of AirPlay devices with a video (rather than a speaker) symbol next to its name. Tap your Apple TV's name, and a tick appears alongside.

3 Mirror, mirror
Your iPhone's media output will now be streamed to the Apple TV, but we want to go one step further. Below the receiver's name you'll see a Mirroring option appear. This appears only if the receiver device is capable of mirroring.

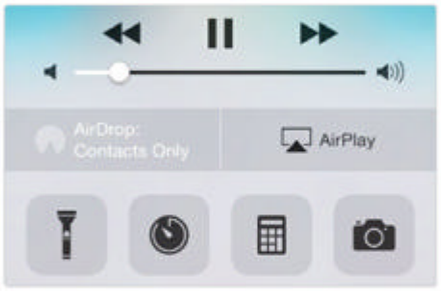
4 Home again
Flick the Mirroring switch to on, and the entire contents of your iPhone display will appear on your TV. Close Control Centre and continue to use your iPhone as normal. Note how the phone's status bar turns blue while you're mirroring. Use the same procedure to switch mirroring off again.

HOW TO | STREAM MUSIC AND VIDEO FROM iOS USING AIRPLAY



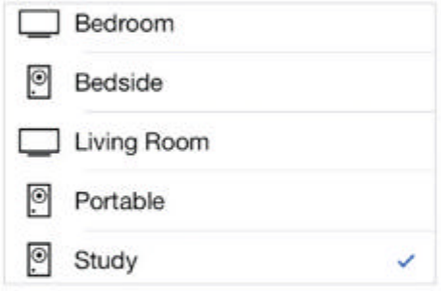
1 Check your Wi-Fi

Make sure your iPhone is connected to your home Wi-Fi network: look for the symbol to the right of the network name (top left corner of the screen). If you don't see it, tap Settings > Wi-Fi to find it and connect. Make sure your AirPlay receiver is on the same Wi-Fi network.



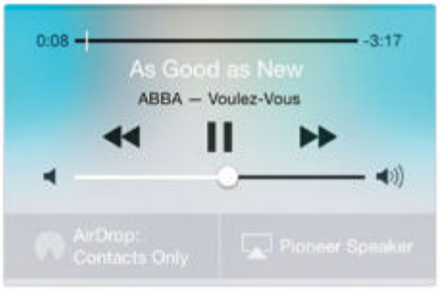
2 Free your tunes

Now press the Home button, then tap the Music app and tap a song to start it playing. To output it through your AirPlay speakers instead of the phone's, swipe up from the foot of the screen to open Control Centre, then tap AirPlay above the bottom row of buttons.



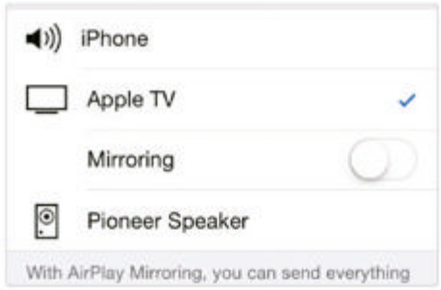
3 Pick your speakers

You'll see all the AirPlay receivers on your network, each with either a speaker or a video symbol next to it. Simply tap the AirPlay speaker you'd like to use. Your music will seamlessly switch to playing through that speaker. Now swipe Control Centre downwards to close it.



4 Control your music

With the music coming out of the AirPlay speakers, you can control it directly from your iPhone: play, pause, skip or control the volume. To switch AirPlay off, open Control Centre, tap AirPlay again, and pick iPhone. This returns the controls to just playing music on your phone.



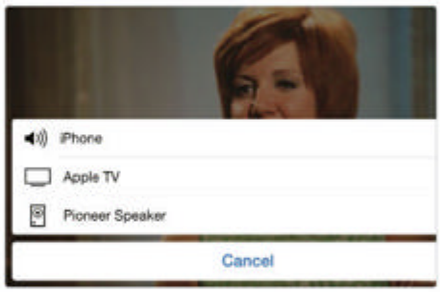
5 Enjoy your videos

The procedure is the same in the Videos app: tap a video you'd like to watch to start it playing. Swipe upwards to open Control Centre, then tap on AirPlay. Your Apple TV (or Mac, if it has the AirServer app installed – see page 126) will be included in the list.



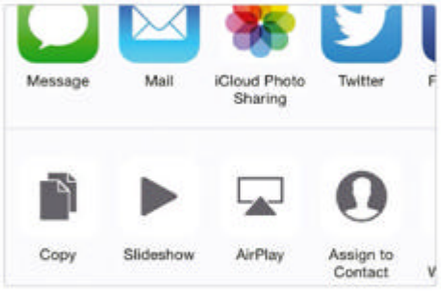
6 Destination Apple TV

Tap a receiver with a video symbol and your video will start playing on it. Your iPhone screen will turn grey and specify where the video is being played. Tap Done and you can control the playback from the comfort of your iPhone using the standard playback controls.



7 Stream from your apps

Some apps (like BBC iPlayer) feature the AirPlay icon on-screen: tap it to pick a receiver. You can almost always divert playback over AirPlay using Control Centre. You might need to swipe upwards once to show the Control Centre handle, then swipe once again to open it.



8 Sharing options

You'll also find AirPlay among the options available to you when you tap the Share button in many apps, including Photos. This works in the same straightforward way: tap AirPlay, then tap the video receiver in the list on which you want to display the selected image or images.

CONNECTION PROBLEMS

AirPlay is so simple to use in OS X and iOS 8 that you should rarely have any problems switching output to the device you want. The only thing to watch out for is the difference between receivers capable of video and those capable only of audio. If you do have any problems, most come down to a weak wireless signal. Try to site your speakers closer to your main router if possible, or invest in a wireless range extender (such as an Apple AirPort Express) to relay the signal to the far ends of your home. You can also try moving the router or speaker around.

Control iTunes remotely

Use your iOS device as a handy remote control for iTunes

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
iTunes 12, iOS device running iOS 7.1 or later, Apple Remote app

One of the best things about Apple products is the way they all fit as a family. Take the iPad and iPhone, for example. Of course, you can sync these devices with your computer to have all your contacts, calendars and songs with you on the move, and you can take this integration one step further thanks to a free Apple app called Remote.

Remote enables you to use your iPhone, iPad or iPod touch as a remote control for iTunes on your Mac or PC. It's a brilliantly simple idea and, as long as both your computer and iOS device are connected to the same wireless network, it works like a dream. It also works with an Apple TV if you have one of those wireless devices connected to your television – see page 118.

Remote is a free download from the App Store. In this tutorial we'll show you how to install the app, set it up to talk to your computer and get it to control iTunes. Bear in mind that you can use the one app to control multiple iTunes libraries on different machines (or under different user accounts, if your Mac or PC is set up for multiple users).

The Remote app enables you to use your iOS device as a remote control for iTunes

Remote can also be used to control music sent wirelessly from iTunes on your computer to one or more AirPlay speakers around your home at the same time, giving you multi-room audio without simply cranking up the volume level at the source. It even gives you separate control of the volume in each room. You'll find more information about AirPlay on page 56.



QUICK LOOK | THE REMOTE APP

Wi-Fi network

1 For the Remote app to control iTunes on your Mac or PC, your iPhone needs to be connected to the same Wi-Fi network.

Back arrow

2 Want to hear something else? Click the Back arrow to browse your computer's library on your iOS device. Playback continues until you tap another track.

Album art and info

3 The album art for the current track is displayed here. Tap it and the track and artist name above will change to a row of dots, which you can tap to rate the track.

Loop

4 To repeat all the songs in a playlist, tap the loop icon (the circling clockwise arrows) once; to repeat one song, tap it twice.

Shuffle

5 Tap this to randomise the playback order (indicated by a grey background). Tap it again to return to the normal order.

Player controls

6 Play, pause, scrub through a track or skip to the next track using the controls at the bottom, which work just like those in your device's Music app.

Volume

7 Slide your finger along the bar to set iTunes' volume. This affects playback both on the phone and connected speakers. If you have any AirPlay speakers on your network, an AirPlay icon is shown alongside, enabling you to choose which speakers receive music and even set the volume of each separately.

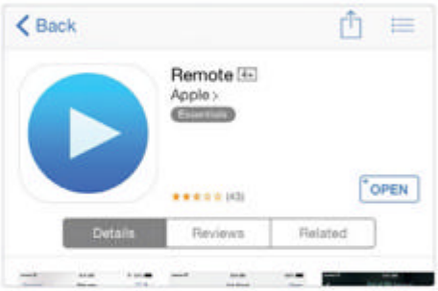
Up Next

8 This shows what's queued for playback. Above the list, Add picks a new song to play next, and Edit lets you reorder the queue.

More… button

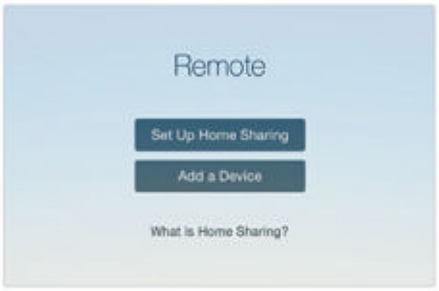
9 Tap this and choose Create a Genius playlist to assemble a selection of tracks that fit together, using what's currently playing as an indicator of what you want to hear.

HOW TO | INSTALL AND USE REMOTE



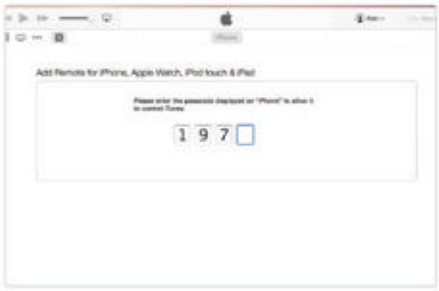
1 Download the app

First download Remote from the App Store on your iOS device or through iTunes on your computer: open the App Store and type 'Remote' into the search box – it's easier this way than trawling through the store. The app is made by Apple and is a free download.



2 Choose a library

Tap the Remote app's icon on your iOS device's Home screen. The first time you use it, you'll be asked if you'd like to turn on Home Sharing or add an device (your Mac's iTunes library). Tap 'Add a Device', and you'll see a randomly-generated four-digit passcode.



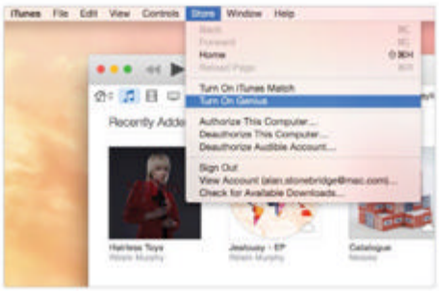
3 Enter the passcode

Open iTunes on your Mac or PC and click the rightmost of the icons near the top-left corner. (If your iOS device is connected, you'll need to select Remote from the list this reveals.) Type the code shown by Remote to authorise that app to access your iTunes library. Click OK.



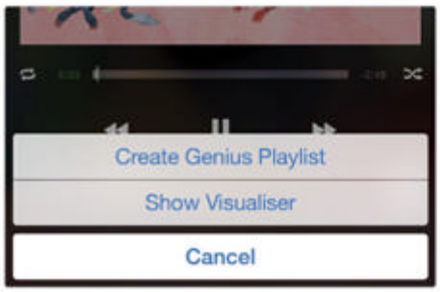
4 Control iTunes

You can now control playback from your iOS device. Pick a track using the Remote app and it'll start playing on your computer. You can play, pause, skip and shuffle your music (see opposite page). Tap Devices at the top-left to go back and choose a different music library.



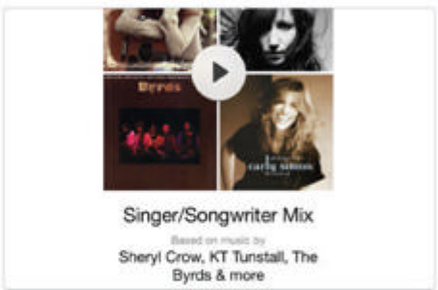
5 Enabling Genius

Genius Playlists are automatically created based on the track you're playing. You can create one in iTunes on your Mac or PC using the Remote app. In iTunes on your computer, click the Store menu, select Turn On Genius and follow the instructions that appear.



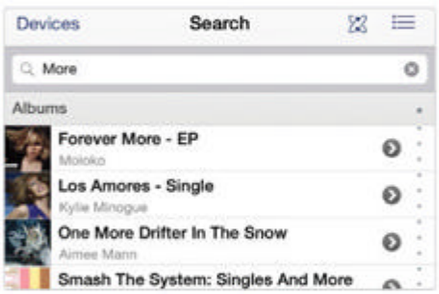
6 Genius playlist

Once iTunes has finished setting up Genius, go back to the Remote app and start a song playing. Now tap the More… button at the bottom-right and choose Create Genius Playlist. The playlist will appear on your iOS device's screen. If you don't like its contents, tap Refresh.



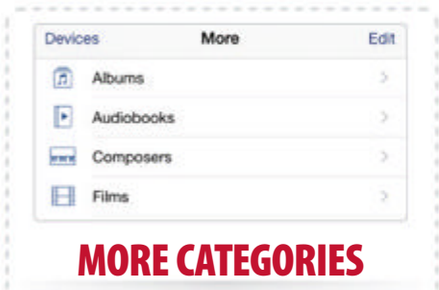
7 Genius Mixes

The new Genius playlist will be named after what was playing when it was created. Tap Genius in the bottom bar to see Genius Mixes, which are automatically-created continuous loops of tracks that sound good together. Swipe left and right to see more, and tap one to play it.



8 Searching

An easy way to find a song or artist is to tap Search in Remote's bottom bar, then tap the search bar at the top and start typing; results appear as you type. Tap one to play it, or tap the arrow to its right to queue the track or use it as a starting point for a Genius Playlist or Mix.



MORE CATEGORIES

Remote can browse the iTunes Library on your computer by playlist, artist or album name using the icons in its bottom bar. Tap More at the right-hand side of the bar to view audiobooks, composers, genres and other categories. Tap Edit to change which ones are listed in the bottom bar.

Sync with any MP3 player

Transfer your iTunes media to non-Apple media players and phones

SKILL LEVEL
Taking things further

IT WILL TAKE
20 minutes

YOU'LL NEED
Notpod (Windows), Playlist to Folder (Mac)

Conventional wisdom says you need an iPod, iPhone or iPad if you want to sync your iTunes media library with a mobile device. But conventional wisdom is mistaken in this instance thanks to a number of third-party options for both Windows and Mac.

You will need a MP3 player or mobile phone that connects to your computer via USB cable and consequently shows up as a removable drive on your desktop. Windows users should use Notpod following the instructions in the step-by-step guide opposite; Mac users can use the free Playlist to Folder app instead.

The two programs work in a similar way: select your target playlist and folder, and the program does the rest. Note that Notpod will wipe any existing music as part of the sync process, while Playlist to Folder simply copies the files you select into their own sub-folder inside whichever folder you choose.

If you're using a Mac you can download Playlist to Folder from http://bit.ly/PlaylistToFolder – go to this link and the zip archive file should automatically download. Double-click the zip file inside your Downloads folder to extract its contents, then drag the app icon into your Applications folder before launching the program. From here it's simple to use – our annotations below explain all you need to know.

Thanks to third-party options, you can sync your iTunes library with non-iOS players or phones

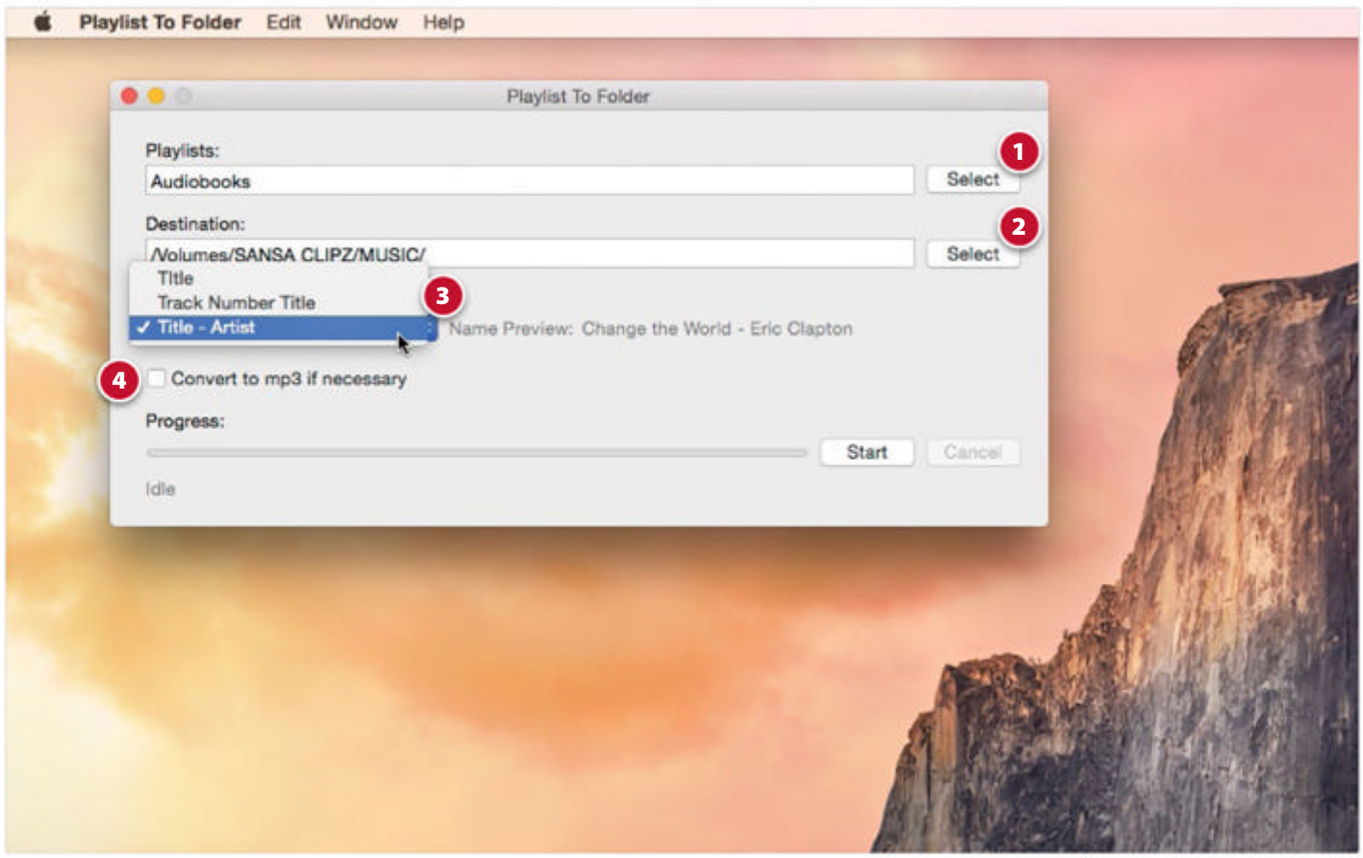
QUICK LOOK
PLAYLIST TO FOLDER

Playlist
1 Click to select the playlist you wish to transfer across – you can also transfer home video, PDFs, books and audiobooks if you wish.

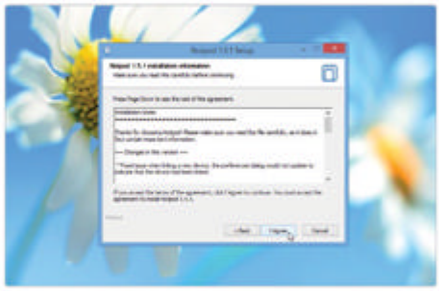
Destination
2 Click here to select the folder on your MP3 player to which you want to transfer the playlist – the playlist will be copied into its own sub-folder inside here.

Tracks Name
3 Of the three options, the default 'Title-Artist' is usually best. Or you can choose simply 'Title' or 'Track number Title'.

Convert to MP3
4 Tick this if your media player doesn't support the native iTunes format – note it will significantly slow the transfer process on larger playlists as files are converted before being copied across.

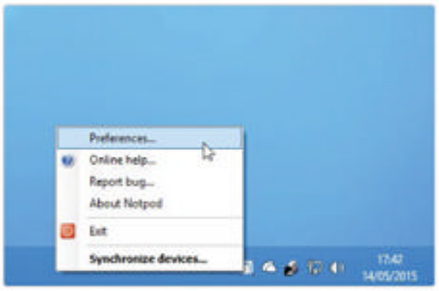


HOW TO | SYNC WITH ANY MP3 PLAYER ON YOUR PC



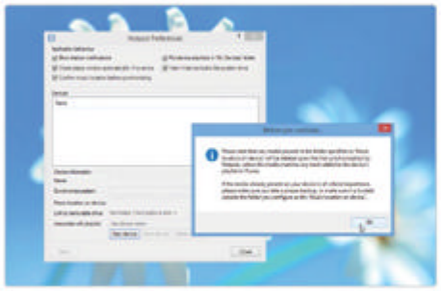
1 Install and launch

Visit www.notpod.com, click Download, then 'Notpod 1.5.1 installer' to save this in your Download folder. Double-click it and follow the prompts to install Notpod. To open it, search for 'notpod' in the Start menu (Windows 7) or use the Search dialog (Windows 8 – press Win+Q).



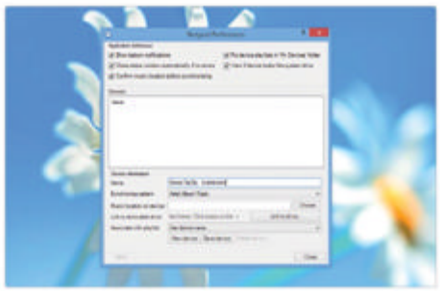
2 Set preferences

iTunes launches alongside Notpod – it needs to be running, so just hide it for now. The Notpod icon should appear in the Taskbar's Notification area – if not, click the ^ button to reveal it, and drag it on to the Taskbar to pin it in place. Now right-click it and choose Preferences.



3 Set up device

Connect your MP3 player. Click the 'New device' button to create a new sync partnership. Note that Notpod will delete any media from the device's specified folder when you first sync with it, so either choose a dedicated folder or back up existing music first. Click OK.



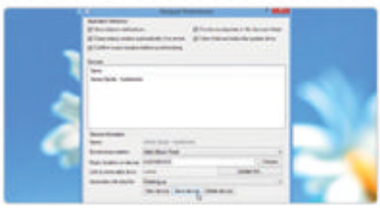
4 Name device

Next, give your device a name – its actual name is simplest. If you plan to sync multiple items – say audiobooks and music – to the device, you'll need to set up each partnership as a sync device, so include something in the name to help identify which partnership is which.



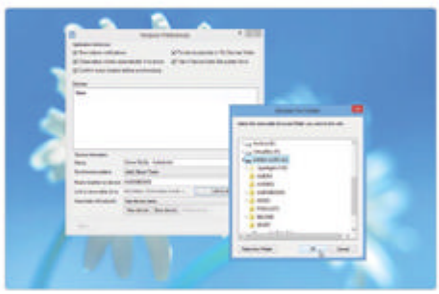
5 Folder and sync pattern

Click Choose to select a folder on your player to store your music – an existing one, or a new one you create (handy if there's existing media that you don't want erased). Now click the Synchronize pattern drop-down to choose how files will be organised on your device.



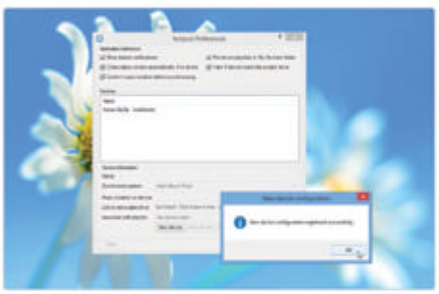
MANAGE YOUR DEVICES

You can manage your devices via the Notpod preferences pane – select a device to change its sync pattern, location and associated playlist. Click 'Save device' when you're done, or 'Delete device' to end the partnership (your device files will be unaffected).



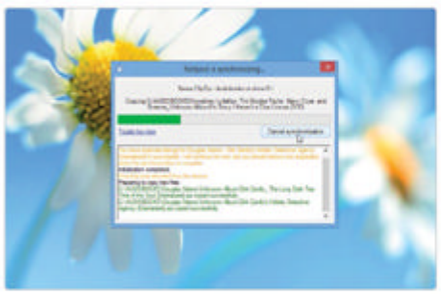
6 Final steps

Click 'Link to drive…', select your device and click OK. Now pick which playlist or media library to associate this device with – the default is 'Use device name…', which means any playlists containing the device name you defined in step 4 will be synced. But there are other choices…



7 Select playlist

You can sync an entire library – music, movies, audiobooks etc – or select a playlist. You can also choose individual playlists or select 'My Devices' to include all playlists you store in a My Devices folder in iTunes itself. Now click Save device and it'll appear in the Devices window.



8 Get synced!

Repeat for any other devices and playlists you wish to set up, then close the prefs window, right-click the Notpod taskbar icon and choose 'Synchronize devices'. Follow the prompts and watch as tracks are copied across to the player. Repeat anytime you wish to update your player.

Use iTunes with Android

With iSyncr, you can sync effortlessly to your Android device

SKILL LEVEL
Taking things further

IT WILL TAKE
20 minutes, plus syncing time

YOU'LL NEED
Phone or tablet running Android 2.1 or later; iTunes 12 on a PC or Mac, iSyncr for iTunes

You don't necessarily have to use an iOS device to get the most out of iTunes – it's perfectly possible to use it to the fullest with an Android device too. While iTunes lacks native support for syncing with Android, with the help of a third-party app on your PC or Mac and device that needn't be a problem.

Of course, Android comes with its own built-in music playback and syncing service in the form of Play Music (on your phone or tablet) and Music Manager (on your Mac or PC). It's a good system, so why would you want to use iTunes at all? Well, the main problem is that Music Manager is pretty rudimentary. It takes an all-or-nothing approach to syncing, simply scanning specified folders for new files and uploading them.

A much better bet is to use an extra app for syncing your iTunes collection to your Android device – and iSyncr for iTunes (£2.99 / $4.99) is easily the best. With it, you can sync over Wi-Fi or USB connection; include album art, sync ratings, play counts, last played date and more; and even sync multiple iTunes libraries. It works the other way, too – if you buy music (or video) on your Android device, you can sync it back to iTunes on your computer. For obvious reasons, though, iSyncr won't transfer any files that are protected with DRM.

There's also a separate Lite edition of iSyncr that is limited to syncing one playlist at a time, with an additional limit of 100 songs per playlist. Note the playlist limit applies only to syncing over Wi-Fi – you can sync multiple playlists up to a maximum of 100 songs per time via USB.

Let's see how to set everything up and get syncing with iTunes on your Android device.

Music Manager is pretty rudimentary. Use iSyncr for iTunes to sync your content over Wi-Fi or USB

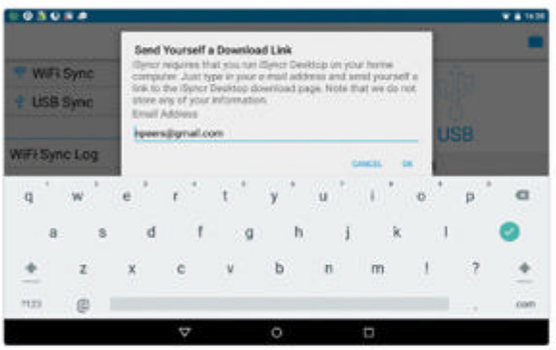


Download and install the iSyncr for iTunes app to sync your music collection to your Android device.

HOW TO | INSTALL AND SET UP iSYNCR FOR ANDROID

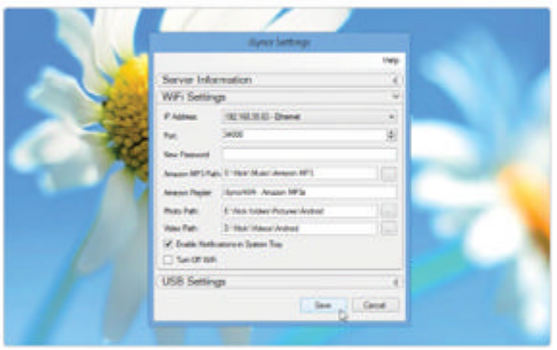
QUICK TIP

If the app does not detect your computer's server over Wi-Fi, open iSyncr on your computer and, in the Wi-Fi Settings area, look for IP Address. In the Android app, tap Try Manual Connection and type in the address, then tap OK.



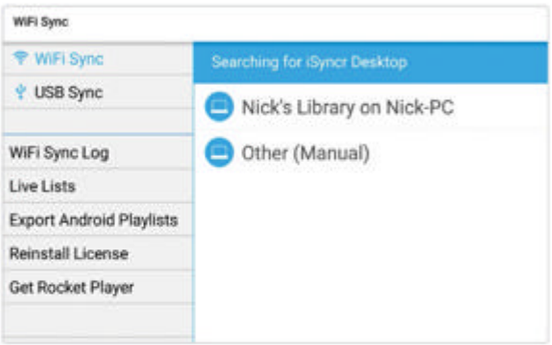
1 Get the app

From the Google Play store on your device, download either iSyncr for iTunes (Trial) for free, or buy the full iSyncr for iTunes to Android app. Once it's installed, open the app. It will offer to email you a link to download the desktop server, or you can go direct to www.jrtstudio.com.



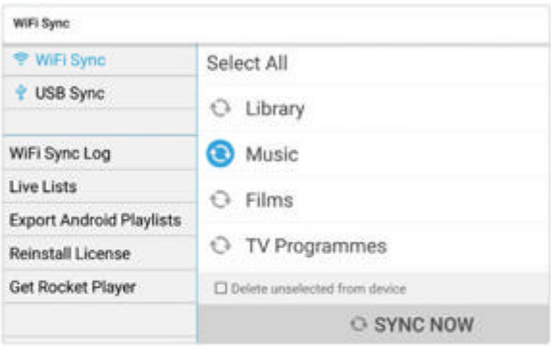
2 Install the server

Download the server from the website or link and install. To sync via Wi-Fi, your computer must be connected to the same network as the Android device. The app runs in the background and shouldn't need configuring; access settings from the icon in the system tray (PC) or menu bar (Mac).



3 Get syncing with Wi-Fi

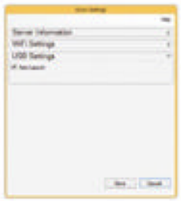
On your device, choose Sync over Wi-Fi (making sure your device's Wi-Fi is turned on and connected). The app will detect the server on your computer and your iTunes library or libraries – each one is listed as '[your username]'s Library on [computer name]'. Tap the library you want to sync with.



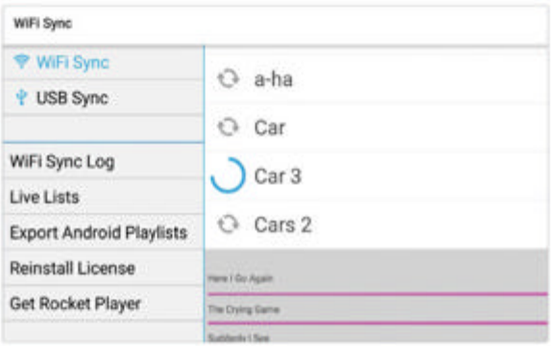
4 Time to sync

iSyncr displays iTunes playlists from your computer, including the automatically generated ones. Select the ones to sync, or choose Library to sync everything. Tap Sync Now to start. To remove files from your device, make sure the playlist is unselected and tick 'Delete unselected from device'.

QUICK TIP



Manually selecting your device in iSyncr each time you want to sync over USB can be tedious – so open iSyncr on your computer and, in the USB Settings section, tick 'Auto launch'. Now iSyncr will start automatically every time you plug in your device.



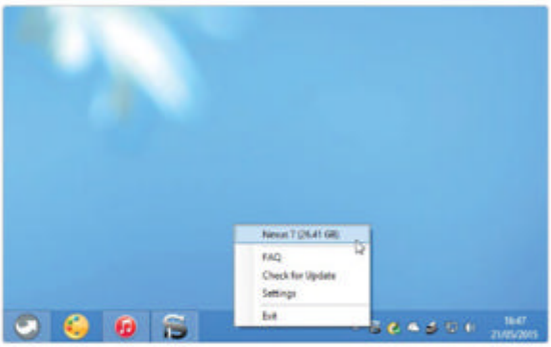
5 On the cards

Assuming your Android device has an SD card, you can choose where to store the data: either in internal memory or on the SD card. The latter is preferable as media files quickly fill limited internal memory. On such devices you also have the option to delete playlists from either location.



6 USB sync

There are fewer limits to syncing via USB and you have full control over what to sync. Make sure your Android device is able to connect to your PC or Mac. You need it to connect as a 'Media device (MTP)' rather than 'Camera (PTP)' – there's an option to switch modes in the notification area.



7 Select the device

Make sure iSyncr is running on your computer – you don't need to run the device app – and then plug in your device via USB. Right-click the program's system tray icon (on a PC) or the menu bar icon (on a Mac) and you should see your device's storage listed. Select the one you want to use.



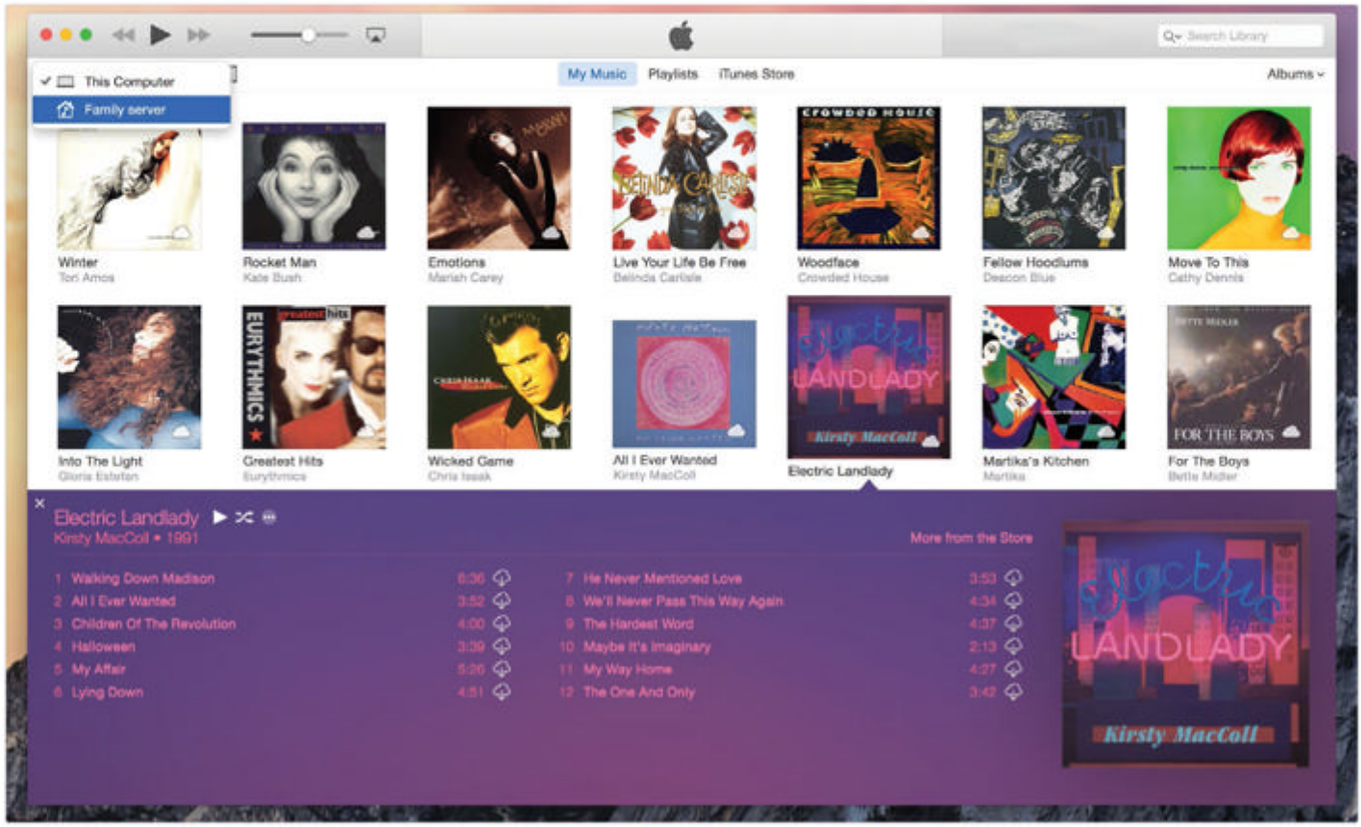
8 Select your stuff

Once iSyncr has started iTunes and scanned your library, choose what to sync: over USB, you can choose playlists, individual artists, albums and more. In Options, you can specify whether or not to sync album art, and to sync only items ticked in iTunes. Click Sync and off you go…

JARGON BUSTER

PTP/MTP

Android devices can connect to a computer via USB using Picture Transfer Protocol or Media Transfer Protocol. In PTP, the computer 'sees' only digital images on the device; in MTP mode it can access other file types.



Share your iTunes content

Share content and sync music, movies and apps to multiple devices

SKILL LEVEL
Taking things further

IT WILL TAKE
30 minutes

YOU'LL NEED
Two or more iTunes libraries on Macs or Windows PCs

These days it's becoming usual to have several computers (and other devices such as iPods and iPads) in your home. Assuming that they're all connected to the same network, whether wired or wireless, it's easy to enjoy your iTunes music and videos on all of them, without having to copy your iTunes library.

The simpler option is called Music Sharing. All you need is iTunes running on both the host computer and any others you want to share your media with. On the host computer, launch iTunes, go to iTunes > Preferences (Mac) or Edit > Preferences (Windows) and click the Sharing tab. Tick the box to share your library on your local network, then select either your whole library or specific playlists to share. You can also set a password if you want. Others on your network will now be able to see your library listed under 'Shared Libraries' in the pop-up menu in the top-left corner in their copies of iTunes. If they select your library (and enter the password if required), they'll be able to play your music (or shared playlists) like it was stored on their own computer.

Share, don't stream

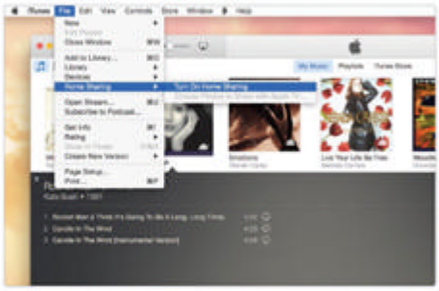
If you want to go one step further, then go to File > Home Sharing > Turn On Home Sharing. You'll need your Apple ID and password. Set up Home Sharing as on the opposite page, and iTunes will then broadcast itself to other copies of iTunes, and to the Music and Videos apps on iOS devices, on your network.

By enabling Home Sharing in iTunes on other Macs and PCs using the same Apple ID and password, whoever is using those devices across your network can not only play your music and videos but also drag-and-drop them from your library to theirs, and even sync them to iPods and iOS devices.

See the difference? Music sharing requires less setting up and enables any computers on your home network to play (or 'stream') your tracks and videos, but not copy them to their own libraries. Home Sharing's use of your Apple ID makes it possible to transfer content to an authorised computer, or stream to other devices including iOS devices and Apple TV (second generation or later); with Home Sharing enabled, you can stream to up to a maximum of five computers. Bear in mind that you have to authorise each device using the same Apple ID – so that your neighbours, for example, can't just download your stuff.

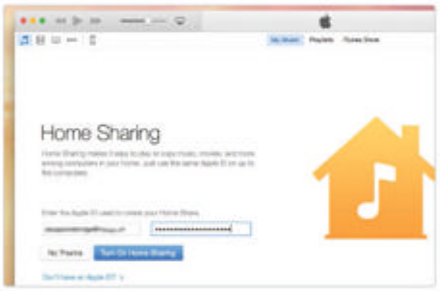
Which method you use ultimately depends on whether you simply want to stream your content to other computers or make more extensive use of it on other devices.

HOW TO | SET UP HOME SHARING IN iTUNES



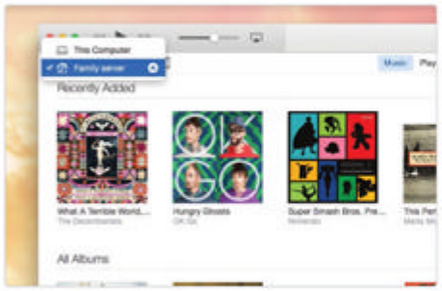
1 Activate Home Sharing

Open iTunes and go to File > Home Sharing > Turn On Home Sharing. You'll need to do this on each Mac or PC that you want to authorise, up to a total of five. You have to turn it on just once per machine and iTunes will remember. You'll need an internet connection!



2 Enter account details

To authorise sharing, enter the details of the Apple ID you want to use. You'll have to do this on every device, using the same Apple ID. Now click the house icon (at the top-left of the iTunes window) on one of these devices and all authorised computers' libraries should be listed.



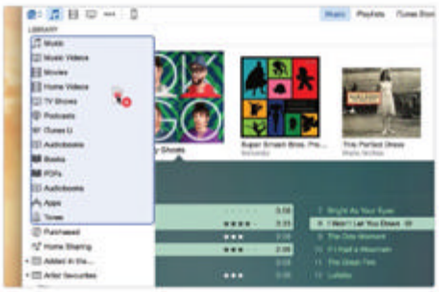
3 Browse a library

Click one of the libraries listed to connect, then browse that shared library's music folder as if it were your own; click the other icons at the top-left to browse content such as movies and TV shows in the other library. When you find an item you like, double-click it to stream it.



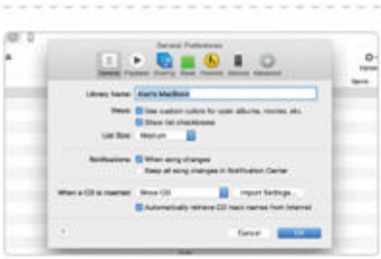
4 Choose view options

Let's do more than just stream a track. First go to the bottom-right of the window and opt to display just the items not already in your library. This way you can be fairly sure you won't be needlessly filling space with duplicate tracks when you copy them (see the Quick Tip).



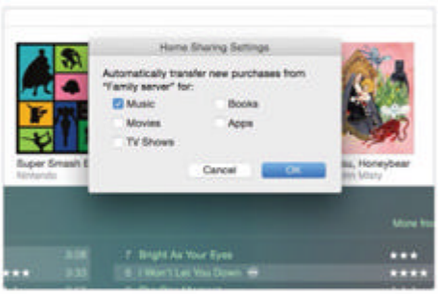
5 Copy media

If you want a copy of one or more tracks from the remote library, select them and click Import. Alternatively, start to drag the selection and a sidebar slides into view. Drop the items onto your library or a specific playlist. Videos might take a while to transfer.



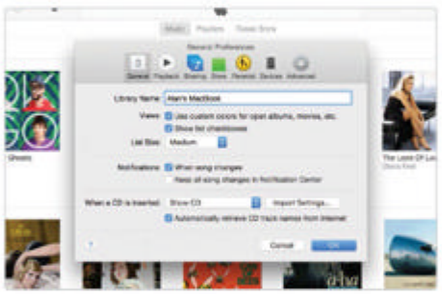
QUICK TIP

iTunes uses metatags within files to identify tracks when comparing libraries. To ensure tracks are tagged properly when ripping CDs, enable the option in Preferences > General to 'Automatically retrieve CD track names from Internet'.



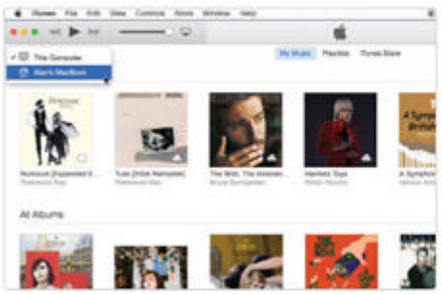
6 Automate sharing

If you click the Settings button at the bottom-right, you can choose to automatically transfer newly-purchased iTunes Store content from the remote library to yours. Then, if a family member buys something, you won't have to manually pick it out of their library.



7 Set library names

If you're using more than a couple of devices and potentially sharing several libraries, you can make it easier to identify them. On each computer, go to iTunes > Preferences (Mac) or Edit > Preferences (Windows), click the General tab, and enter a suitably descriptive name.



8 Access remotely

The name you've set appears in the pop-up menu on other computers and devices on your network. Once you've connected to a library, as well as browsing the shared media in it, you can use the search bar to find things, press ↵ and then drag items to your library.


T3
HELPING YOU MAKE THE MOST OF LIFE IN TODAY'S CONNECTED WORLD
ONLINE • PRINT • TABLET
AUDIO TECHNICA ATH-MSR7
Escape to a world of high resolution audio
SAMSUNG JS9000
Relax with the latest home entertainment
CARL ZEISS VR
Embrace a new era of virtual reality gaming
SONY XPERIA Z3
Putting you in control of your life and home
APPLE WATCH
Your health and fitness upgraded
LIFE'S BETTER WITH T3
t3.com

Set up Family Sharing

Take full control of your children's spending and share your purchases

SKILL LEVEL
Anyone can do it

IT WILL TAKE
At least 15 minutes

YOU'LL NEED
Macs with Yosemite, iOS devices with iOS 8, and an Apple ID each

Family Sharing allows up to six nominated family members to share purchases from the iTunes Store, the App Store and the iBooks Store. It avoids each person having to buy their own copy of an item for their personal devices.

When you set up Family Sharing, you'll become the family 'organiser'. When another family member buys something from the aforementioned stores, it will be billed to your credit card. If that sounds alarming, rest assured: if you switch on 'Ask to buy' for any family member's account, you'll receive a notification on your Mac or iOS device that enables you to approve or disallow the transaction first. Ask to Buy is automatically enabled for children under 13, and you are able to limit the kinds of media they are allowed to buy.

Family Sharing can be used only with apps for which the developer has enabled it. You might find some past purchases, in particular, are ineligible.

When you set up Family Sharing, you'll automatically be setting up a shared calendar and a family photo album in Photos; if you allow it, people can also share their location. Apple lists some other fine details about Family Sharing at http://apple.co/1LGSxwt.

HOW TO | SET UP FAMILY SHARING



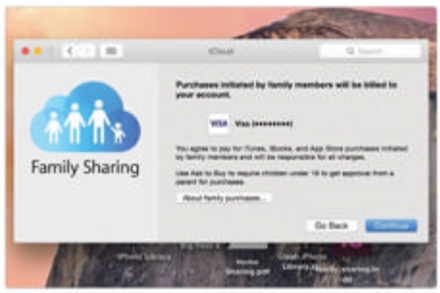
1 Turn it on

In System Preferences, click iCloud and ensure you're signed into the service. Click Set Up Family, then Continue; you will be asked if you'll be the family organiser. Don't worry if the iCloud account shown and your iTunes Store account use different Apple IDs. Click Continue.



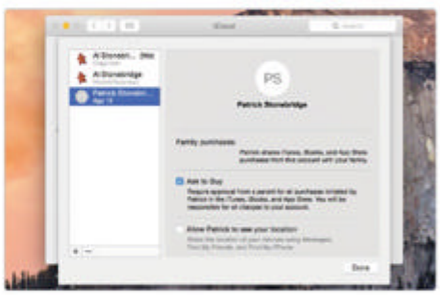
2 Multiple Apple IDs

By default, Family Sharing will share purchases from using the iCloud account you're signed in to. However, the next page is a chance to share purchases made with a different Apple ID. If that's your situation, click Use a Different Account, enter its credentials and click Continue.



3 Verify your payment

You'll be shown the last four digits of the bank card that will be charged for purchases made by family members. Click Continue and you'll be asked whether to share your location (based on your Mac's location) with them. This is the final question. Click Continue.



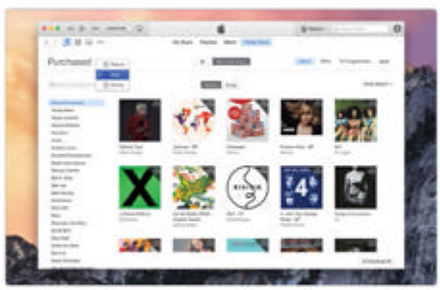
4 Add family members

Next is a list of family members. To add more, click '+' (bottom-left) and specify whether you're to add an existing account, or set up a new one for a child, which also sets their iCloud address, name and security options. After, select them in the family list and turn on Ask to Buy.



5 Parental approval

When adding an adult, verify you are the organiser using your credit card's CVV code, and click Continue. They can authorise using their password on your Mac, or later via email. At the family list, select them and tick Parent/Guardian if they will authorise a child's purchases.



6 See others' purchases

Click the music icon at the top-left, then iTunes Store. Under Quick Links, click Purchased and click your name at the top-left of the next page to switch to and download another family member's purchases. On iOS, open the iTunes Store app and find Purchased in the bottom bar.

Set up Family Sharing in iOS

Share books, music and apps without your Mac!

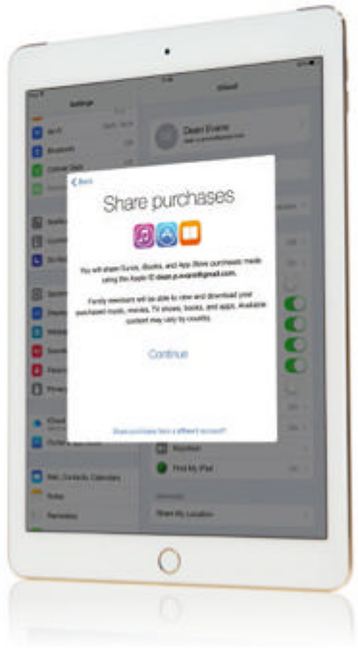
SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
iOS 8 on each device; Apple ID for each user; a credit card linked to Organizer's Apple ID and iTunes account

We've already looked at how to set up Family Sharing on your Mac, but you can do it all from iPhone or iPad if you prefer – after all, that's where most of the sharing will probably be done these days, especially for things like games. For many kids, the iPad has replaced the games console, yet they can't just share games as they would with a PlayStation. Family sharing means everyone can play the game, or listen to a new album or read a new book, as well as seeing photos from a shared iCloud Photo Library. It works for items you've already bought, and any group member can share content with any other person in the group. It's also a nifty alternative to having to buy iTunes gift cards, because you can link your children's accounts to yours and allow or prevent purchases – including In-App Purchases.

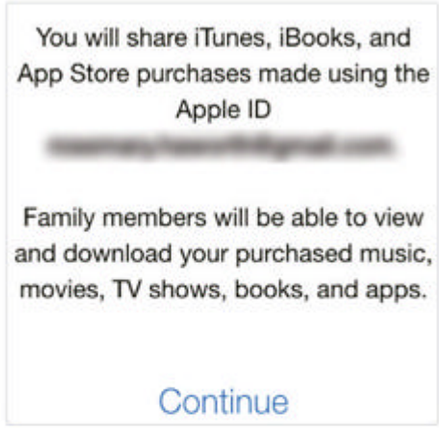
As we mentioned, you can't share everything. Some items are set to be non-shareable, such as movies you can't download to more than one device. In practice, it's mainly apps that have this restriction on them. Most books, games and music can be shared, and there's also a new cost-saving app bundles option in the iTunes Store. There's a limit of six people per Family Sharing group and 10 devices that can share content on them at any one time.

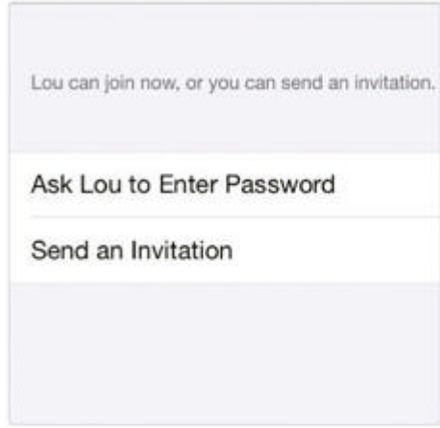


Family Sharing lets up to six people share apps, games and books, plus photos and a family calendar

HOW TO | SET UP AND MANAGE A FAMILY SHARING GROUP







1 The Organizer account

Family Sharing needs to be set up by the Organizer – essentially the account holder and the one who will be responsible for paying for apps and games. You can either set up Family Sharing when first setting up your iPhone, or do so later by going to Settings > iCloud and tapping Family. An overview screen summarises what Family Sharing enables you to do. Tap Get Started to proceed and then confirm you want to use your existing Apple ID and account.

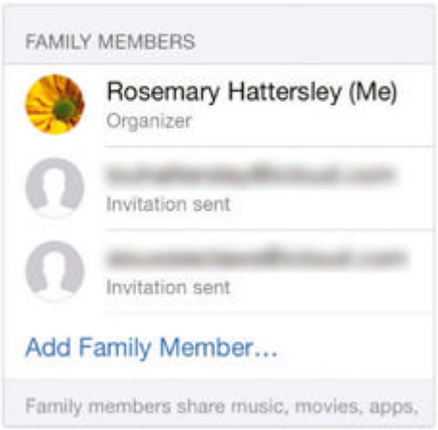
2 Confirm options

The Organizer manages the Family Sharing account and controls whether younger users can buy particular apps and games. Check and confirm the account's card details, then confirm that you accept responsibility for purchases made using it. You can then opt to share your location with group members using the Find My Friends app. This can be useful for keeping an eye on your kids' or their iPhones' whereabouts. Tap Not Now to skip this option.

3 Add members

To create your family group tap Add Family Member and type the email address of a person you want to add. Up to six people can be members of a Family Sharing group, but you can be a member of only one group at a time. If the person joining the group is with you, tap 'Ask [name] to Enter Password' and then get them to type in their Apple ID password on your iPhone. Provided that their Apple ID and password tally they will immediately be added to the group.

HOW TO | SET UP AND MANAGE A FAMILY SHARING GROUP (CONTINUED)



4 Invite by email

It's likely that some people you want to add to the group are not on the spot when you want to set it up, so you'll need to send their invitations by email. Type an email address on the Add Family Members screen, then tap Send Invitation. Enter your Apple ID password when prompted. You'll then be taken back to the Family Members page, where you can instantly issue further invitations by tapping Add Family Members and entering each person's email.



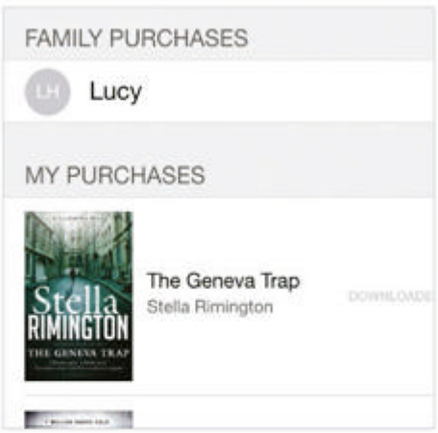
5 Confirm memberships

Invitees will get an email outlining what Family Sharing is all about, with a link to confirm they want to join your group. They can join only if they aren't part of another Family Sharing group. Once they accept your invitation, you'll get an email, and their name will also appear in the Settings > iCloud > Family list. Tap the name of any adult in the group list and then toggle Parent/Guardian on if you want them to be able to approve Ask To Buy requests from a child.



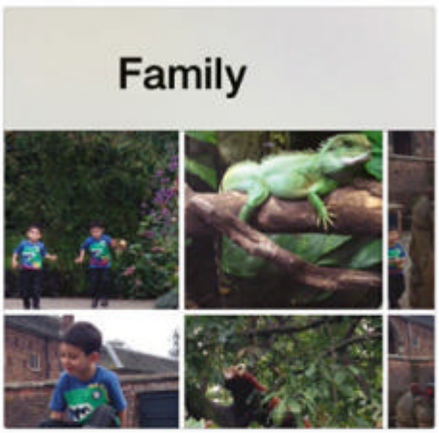
6 Adding a child account

Under 13s must have their own Apple ID (they can't use yours), but you need to set up the account for them using your payment details. This must be a credit card rather than a debit card (credit cards can be issued only to those over 18), so you may need to switch the card you use for your Apple account at this point. Now add their birthdate, so you can control what age-appropriate content they can see. If they try to buy something, you'll get an Ask To Buy request.



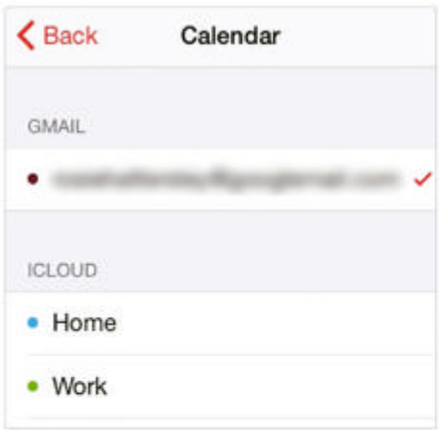
7 Start sharing

You can immediately share books, apps and games with group members by tapping the Purchased section of the App Store or iBooks, and then tapping a member's name to view what they've bought. It can take a couple of minutes for the content to appear in the list, though. If you spot something in another group member's library that you want to use, just tap it to download it to your own iPad. You'll see a message on any items that can't be shared.



8 Share photos

You can share photos with your group by turning on iCloud Photo Sharing in Settings > iCloud > Photos. Now go to the Photos app, tap Shared > Family and then the + . Tap to select any photos from your iPhone's gallery that you want to include, then tap Done. Add a caption if you wish, then tap Post. If you previously used Photo Stream to share albums, you'll see these appear alongside the Family and other shared photo albums within iCloud Photo Sharing.



9 Set up family events

Family Sharing is also very useful for reminding family members about get-togethers and other events. This works only if you sync the Calendars app under Settings > iCloud > Calendars. If you don't have this option switched on, you must send an email invitation to attendees from within the Calendar app. With it active in iCloud, you just tap Calendar and tick the appropriate family members' names to share the event with them to appear in their calendars.

Better searching in iTunes 12

Get your head around a search bar that may not work the way you expect

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
Some media already in iTunes

When you've amassed a large song collection in iTunes, finding what you want to listen to can be a fiddly and time-consuming process. Setting up a Smart Playlist (or several) can mean you have a starting point (see page 44), but you may still need to rummage through a lot of tracks. For this reason the search bar is a vital feature of iTunes. Start typing and it quickly shows matching items in an elegant pop-up list.

However, search terms that worked fine in iTunes 10 and earlier might now yield no results at all. That's because Apple altered some aspects of the search function in iTunes 11. Here we'll explain some of the quirks of the new function and show you a couple of ways to work around these and get the results you expect.

One useful thing to know is that when the song or other item you're looking for appears in the search results panel, it is possible to add it straight to Up Next simply by clicking the + sign that appears to its left when you move your pointer over it. Click the three-dot ellipsis button that appears to its right for more options, including a quick way to add it to a connected device or into a playlist. You can also drag it straight from the panel into a playlist open in the main iTunes window.

Alternatively, you can opt to disable the results panel entirely and revert to the more reliable legacy search function, though results will then be presented in a grid view in the main window.



The list that drops down from the search box updates in real time as you type more search terms.

When the song you want appears in the search panel, you can quickly add it to Up Next or a playlist

HOW TO | FIND WHAT YOU WANT WITH THE SEARCH BAR

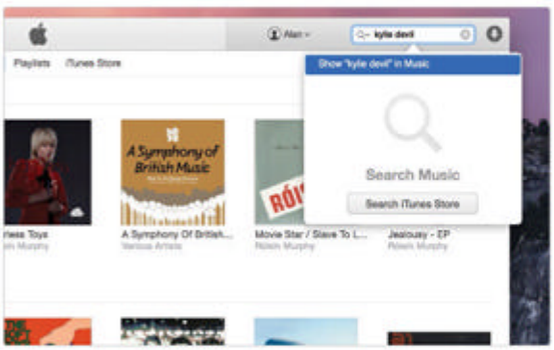
SEARCH STORE

When you're viewing your library but want to search the iTunes Store, you don't need to click iTunes Store before typing in the search bar. Enter your search terms and then press ⌥+↵ to search the store straight away.



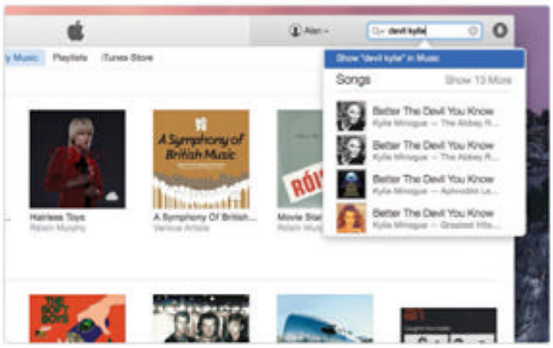
1 The search results list

Type in iTunes' search bar, and a list of matching items appears. It searches all sections of your library, and groups items accordingly. Music might be broken down into artists, albums and songs whose names contain all keywords. We've searched for 'kylie', which shows a few results.



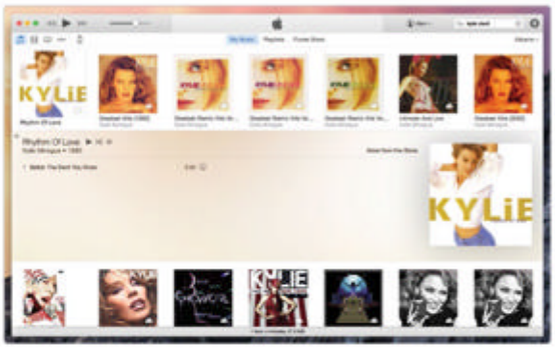
2 A problem with multiple words

If there are many matches in a category, only some are shown until you click 'Show XX More' next to it. Typing additional keywords might not shorten the list as you expect: when we add 'devil', iTunes draws a blank, despite several versions of *Better the Devil You Know* being in our library.



3 Inconsistent search behaviour

If we reversed our search terms, iTunes found what we wanted. It isn't that you must enter words in the order they appear in a single item of metadata; iTunes can have issues matching against multiple pieces of metadata. The search behaviour from iTunes 10 is more reliable, and still available.

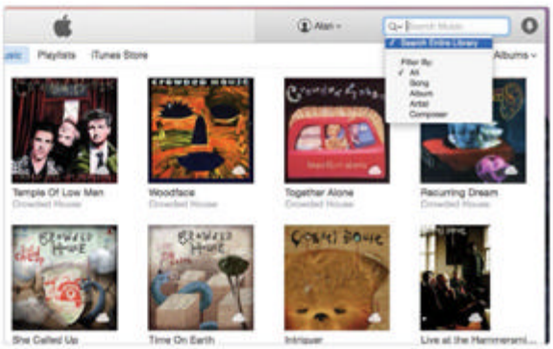


4 Increase precision

At the top of the results list is a line like 'Show [your search terms] in [the library section you're viewing]'. Make sure this mentions the correct library section for what you're looking for before, then click this to match multiple keywords no matter how they're split among an item's metadata.

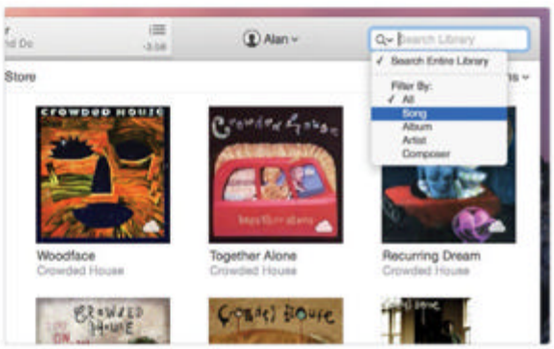
QUICK TIP

If you've used the comments field to attach information to tracks, they are searchable – just not by default. In the My Music view, set the view options to Songs. Right-click a column heading and enable the Comments column. The search bar can inspect its contents.



5 Skip the pop-up pane

You can also do this type of search by pressing ↵ at any time. Results continue to update as you type in the search bar. If you only ever want to use this sort of search, click the magnifying glass and turn off Search Entire Library to bypass the results pane and restore iTunes 10's behaviour.

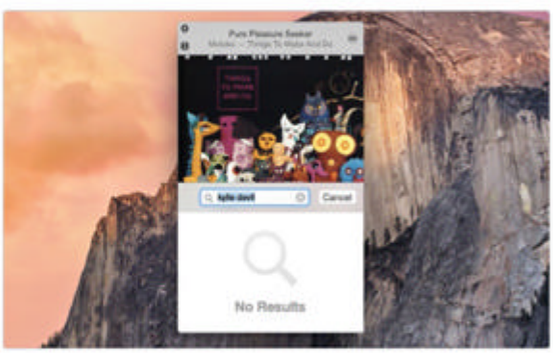


6 Targeted searches

Once you've turned off library-wide searches, the options below that become available. These mean you don't have to search all the metadata attached to tracks: if you're getting too many results to wade through, try restricting the search to song titles, for example.

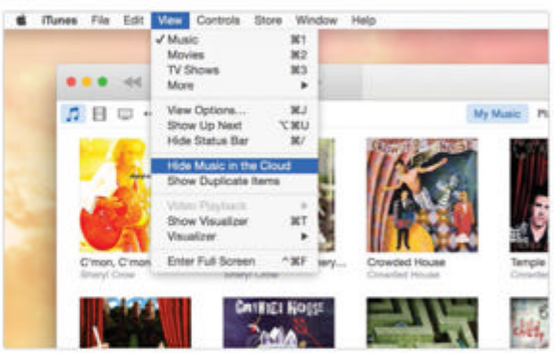
QUICK TIP

When you turn off Search Entire Library in the search bar, searching is context sensitive. As well as searching the selected kind of media (top-left), in the Playlists view it will search only within the current playlist or playlist folder, so you can combine the two to perform hyper-focussed searches.



7 Results in the main window

Switching back to iTunes' legacy search behaviour works only in the main window. If you're using the MiniPlayer and do a search from there (see page 40), it will ignore the workaround. Consider this if you expect one keyword to be found in, say, a song's name and the other in the track's artist.



8 Clear up cloudy vision

iTunes shows items bought from the iTunes Store – and elsewhere, if you use iTunes Match – even if they aren't on your Mac, so you can download them on a whim. If downloading isn't an option, you can hide and omit them from searches by choosing View > Hide Items in the Cloud.

Optimise iTunes

Follow these tips to make iTunes launch quickly and run smoothly

SKILL LEVEL
Taking things further

IT WILL TAKE
20 minutes

YOU'LL NEED
Smarts (Mac only)

Think for a minute about all the things that iTunes can do: it's a repository holding possibly many gigabytes of media, a library, a shop and an internal database, plus it has to stream and sync all that data wherever you choose. No wonder it can sometimes run out of puff!

Part of the problem is that Apple loves loading up iTunes with amazing new features, many of which you don't need. Things have got even worse with users complaining of long lags – even on powerful machines – when switching songs or views.

So what can you do to boost its performance? One of the best ways to stop iTunes slowing to a crawl is to take control of your Smart Playlists. It's easy to create dozens or even hundreds of these to wrangle your tracks in different ways, but they also force iTunes to work harder to maintain them all, especially if you choose to enable live updating.

Now, obviously, you don't want to just delete all those useful Smart Playlists willy-nilly, but it helps if you can cut them down. Riding to the rescue is a Smart Playlist management app called Smarts from scripting wizard Doug Adams, which makes it easy to save, edit, export and (gasp) delete your Smart Playlists so iTunes works better. Read on to find out how.

Apple loves loading up iTunes with new features, many of which you either don't need or don't know exist

QUICK LOOK
DECLUTTER ITUNES

Rebuild library cache

1 If iTunes is slow to open, try holding down ⌥ as you launch the app. Click Choose Library. . ., select your existing iTunes folder and see if it speeds things up.

Genius

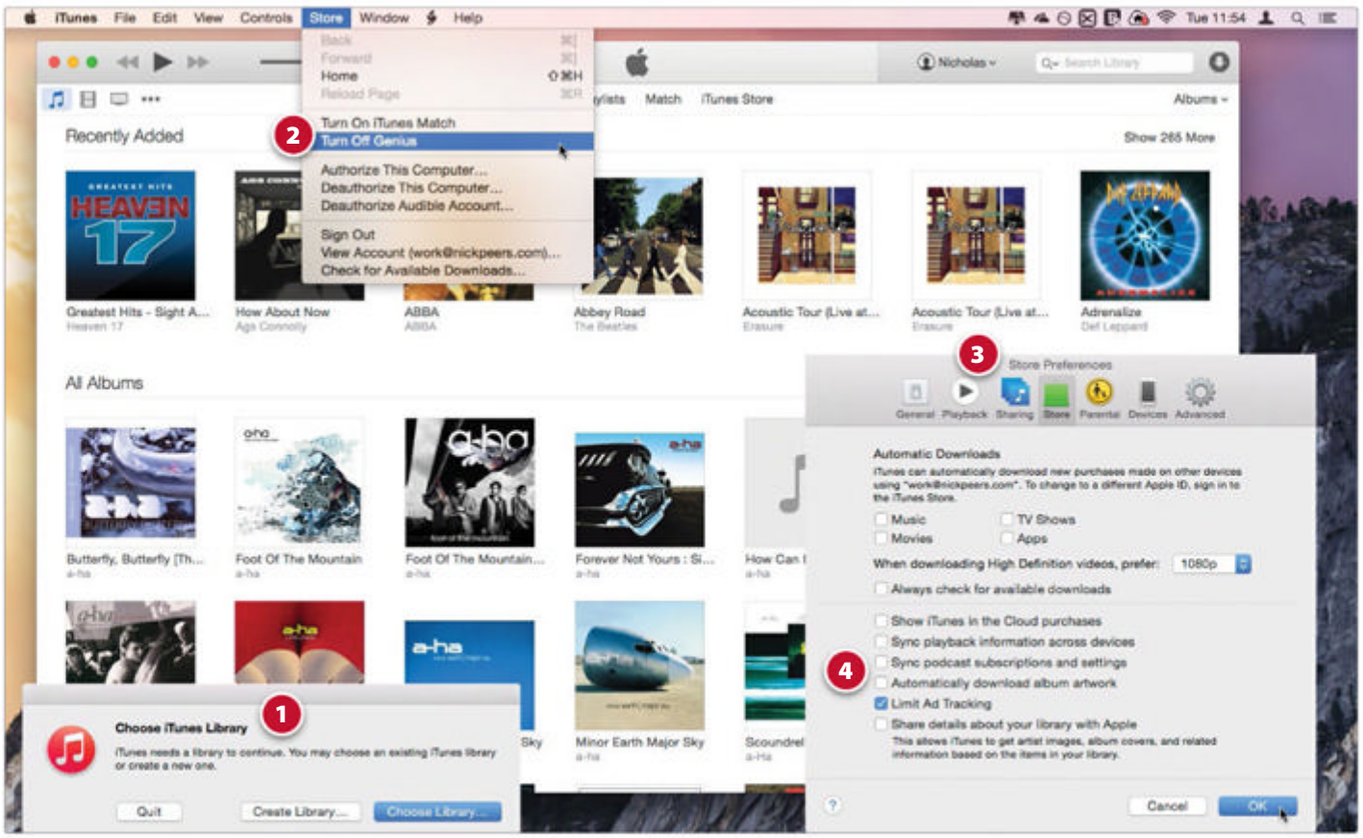
2 This may be a clever feature, but the need to compare your playlists with millions of other iTunes users makes Genius a real resource hog. Make sure it stays disabled from the Store menu.

Home Sharing

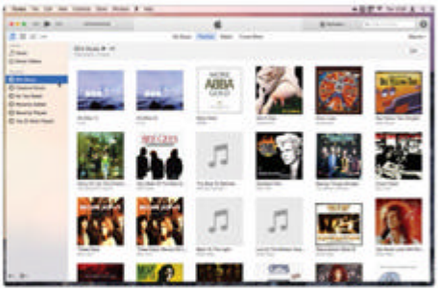
3 This is another resource hog, so unless you're running iTunes as a server for the rest of your network, deactivate it in iTunes > Preferences > Sharing.

iTunes Store

4 Go to Preferences > Store and untick everything except 'Limit Ad Tracking' – doing so can significantly speed up sync operations.



HOW TO | MANAGE YOUR SMART PLAYLISTS USING SMARTS



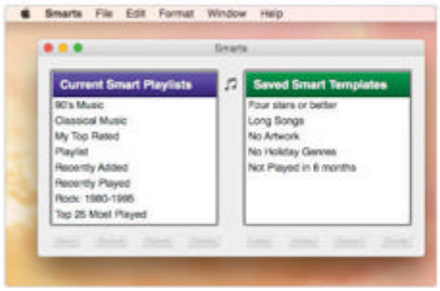
1 Manage Smart Playlists

Smart playlists are a great way to manage music in your iTunes library (see page 44 for details on creating and using them). But managing them can be tricky, especially if you have so many that they force iTunes to a crawl. This is where Smarts comes in.



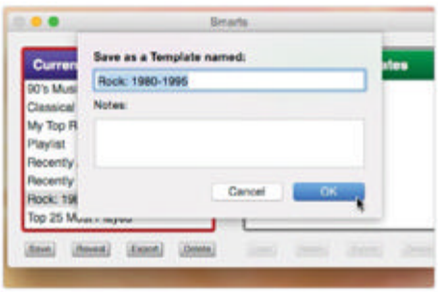
2 Install Smarts

Smarts is a free iTunes Smart Playlist manager from Doug Adams, the man behind iTunes AppleScripts at http://dougscripts.com/itunes. Smarts itself must be downloaded from the App Store, so go to it from the menu and search for 'Smarts' – it should be the first entry.



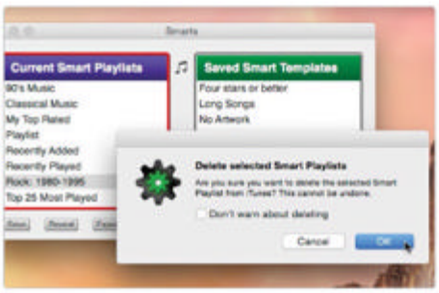
3 Compare your playlists

Open Smarts and confirm your iTunes media folder if necessary. You'll see two lists in its window: on the left, the Smart Playlists you have in iTunes; on the right, saved Smart Playlist templates, which are stored outside iTunes, so they can be used for backup or restoration.



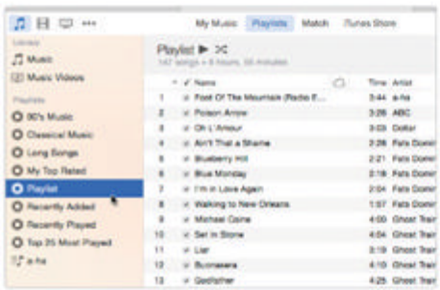
4 Save your playlists

Before you delete any Smart Playlists, it's wise to back them up. Highlight one in the left-hand panel of Smarts, then click Save. Rename it if you wish, and add some notes to help you identify it in future if necessary, then hit OK. Do this for every Smart Playlist you wish to keep.



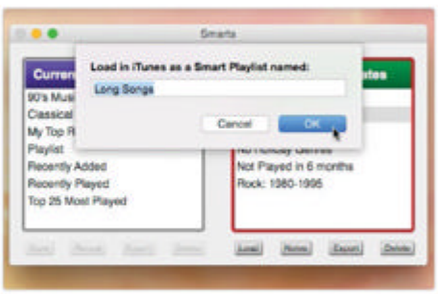
5 Delete your playlists

Now you can purge iTunes of unwanted Smart Playlists, safe in the knowledge that you can restore them later. To do this from Smarts' left-hand panel, highlight a playlist, click Delete and then OK to confirm your decision. Repeat for each unwanted playlist until you're done.



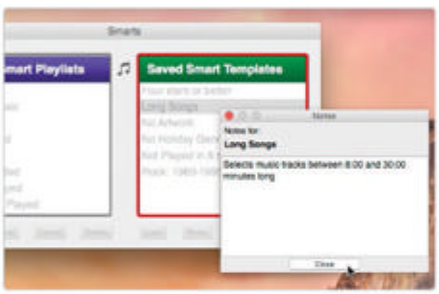
6 iTunes optimised

Your playlist sidebar will soon be much less cluttered. You should also notice a speed improvement each time you launch iTunes because it won't have to update all those Smart Playlists every time it starts up. If you change your mind, restoring a Smart Playlist is simple…



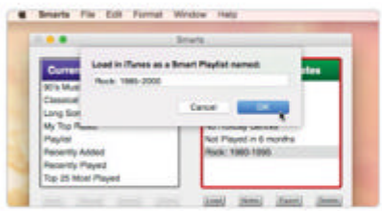
7 Restore playlist

Your saved Smart Playlists remain in the Saved Smart Templates pane. From here you can restore them: click the Load button, rename the playlist if necessary and click OK. iTunes should now automatically launch, so wait while Smarts updates the database with the restored playlist.



8 Manage templates list

You can also edit (or add) notes to a saved template – highlight the template and click Notes to review or make changes. Click Export to export the Smart Playlist as an XML file you can manually import into another copy of iTunes, or Delete to get rid of it permanently.



QUICK TIP

You can import playlists into iTunes by going to File > Library > Import Playlist. The Smarts app is also handy for creating tweakable Smart Playlist templates, which act a starting point for new Smart Playlists – faster than editing existing ones.

Automate iTunes

Speed up repetitive actions in iTunes with the help of AppleScript

SKILL LEVEL
Taking things further

IT WILL TAKE
30 minutes

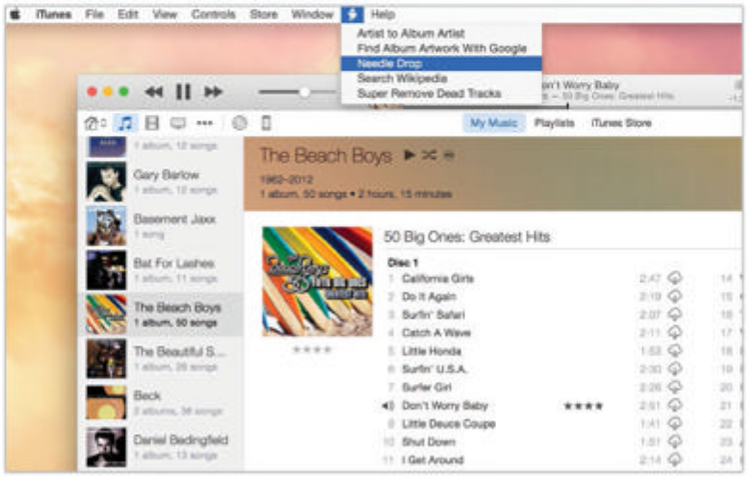
YOU'LL NEED
Access to dougscripts.com

Have you ever found yourself having to perform the same tasks in iTunes over and over again, leaving you yearning for some kind of magic button that could perform those repetitive actions for you with just one or two clicks? Or perhaps you want some way to extend iTunes and add functions that aren't built into even the latest version of the app?

If you're running iTunes on a Mac, then the answer to all your woes lies in Apple's official scripting language, built into OS X. AppleScript enables you to build bespoke controls or automate repetitive actions that help fill in the gaps in iTunes.

Scripts can assist you with everyday management tasks, taking minutes to do what would usually take hours

Don't panic! You don't even need to learn a new programming language, because OS X comes with a utility already made for the job called Automator, with which you can record your own scripts without having to enter (or even understand) any code.



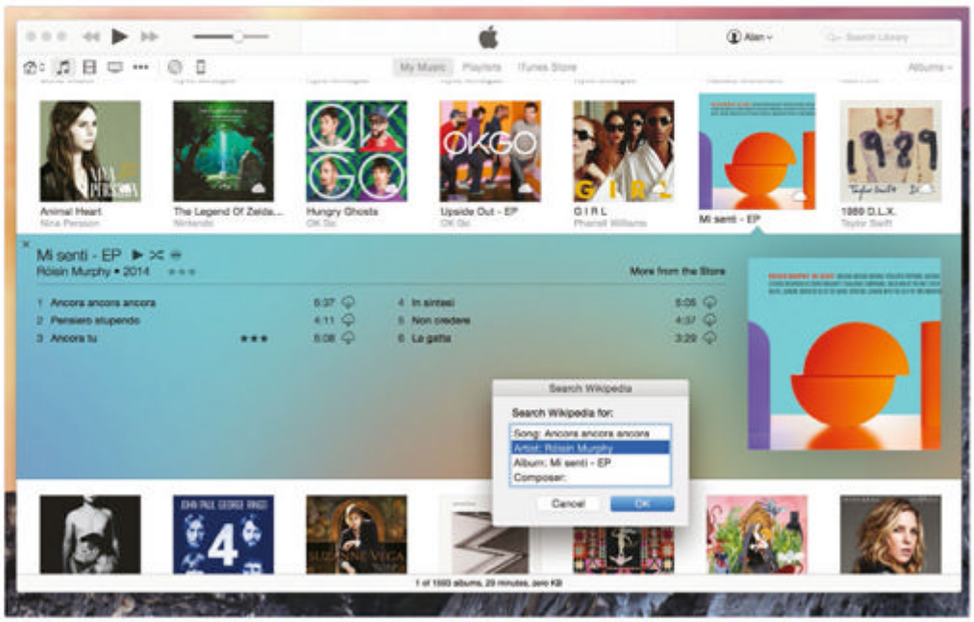
Once they're installed, you'll find that your scripts are easily accessible from their own dedicated menu.

It might not even be necessary for you to dive in and create your own AppleScripts or Automator workflow from scratch: given how many people use iTunes, someone else might already have created the script you need. If so, all you need to do is download said script and copy it to the correct folder – the box on the opposite page explains everything you need to know about installing scripts in iTunes.

Once this is done, launch iTunes and you should see a new icon appear in the menu bar between the Window and Help menus. Click this to reveal the Script menu, with options for each script you've installed. Just follow the instructions to use the script.

A great place to start when looking for ready-written iTunes scripts is dougscripts.com – here you'll find more than 450 AppleScripts covering a wide range of bases, including tracks, artwork and playlist management, controlling iTunes, networking and internet tools, and many more besides. While we positively encourage you to take the time to go through this massive collection picking out scripts that may be of interest, allow us to showcase some of our favourites – use the Search box at the top of the home page to search for the script name.

Most scripts ask a question or two, then happily get on with their job.



Track management

If you've got a pretty sizeable music collection, keeping it in good shape can take time, and with thousands of tracks, things can slip through the net. Scripts can assist you with management tasks, taking minutes or seconds to do what would usually take you hours or more.

One of the best 'house cleaning' scripts is Super Remove Dead Tracks. This finds songs listed in your library that are no longer available on your Mac. Every 500 tracks it throws up a message to inform you of its progress, and you also get an optional text-based

How to install a pre-written script

You've found the perfect script for your needs online, and now you want to start using it. What do you need to do?

Start by downloading the script from the internet. In most cases it will have been packaged as a Zip or DMG file. So once it's downloaded, double-click the file and it should unpack its contents into the same folder or, if it's a DMG file, appear in the Devices section of the Finder's sidebar. Either way you'll find the script file and possibly a 'read me' file too; the 'read me' file usually includes details of the latest updates.

Now (assuming you're running OS X 10.7 Lion or later) hold down the ⌥ key and open the Go menu in Finder. Select Library to open your user account's Library folder, which is normally hidden to avoid accidental damage. Open the iTunes folder within this and – if there isn't one already present – create a new folder in here called Scripts. Drag the files you've just extracted from the download into this folder, and the script will be installed and ready to use the next time you open iTunes.



You'll find that some scripts even come with step-by-step instructions to remind you of the installation procedure we describe here.

log file at the end that confirms which entries have been deleted. On our 13,500-track test library on an old 24-inch iMac, this entire process took under a minute.

Tracks Without Artwork to Playlist performs a similar function. It enables you to select a library, a playlist or an arbitrary bunch of tracks and add any songs without artwork to a new playlist. On activating the script, all you need to do is click Proceed, choose a name for your playlist and wait for a bit. On our iMac, the script took about five minutes to churn through our 13,500 tracks, finding about 1,500 that lacked artwork. With a 'no artwork' playlist in place, it's a simple process to grab artwork online for these tracks (see page 34).

On the playlist front, another great script is Gather Up the One-Hits. This script collects tracks where artists are represented in your library by just one single song. Chances are this will comprise content mainly from compilations, but we found a bunch of one-offs we'd grabbed from the iTunes Store and subsequently forgotten about.

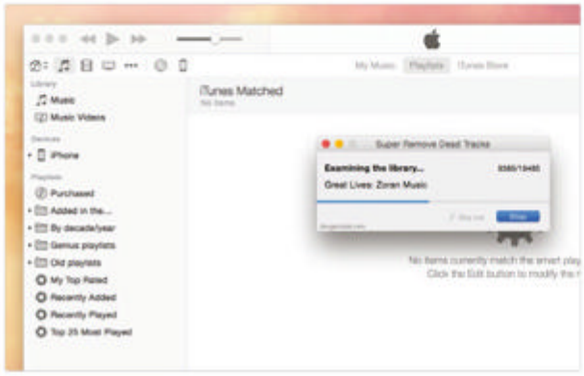
All three of these very useful scripts – along with six others – have also been packaged up into a single app called TrackSift 2, which you can purchase from the Mac App Store for £3.99.

Track info and playback

Along with rapidly cleaning up your library, scripts can be used to deal with metadata without you having to use the Get Info window. Quite often, the data that iTunes downloads when you import tracks from CDs by fairly obscure artists isn't accurate. One common error is the artist and track name fields being reversed. The Swap This With That script from the 'This Tag, That Tag' compilation (http://dougscripts.com/219) can fix this.

Launch the script, select a tag to swap from and another to swap to, and your songs' data is amended. Be aware, though, that there's no undo!

If your niggles with track data are subtler, investigate Track Names to Sentence Caps (http://dougscripts.com/226) and Track Names to Word Caps (http://dougscripts.com/227), both of which reformat cases in track names. Also check out Remove n Characters From Front or Back (http://dougscripts.com/176). This enables you to remove a specific number of characters from the start ('front') or end ('back') of a selection of song titles. So if some song titles have track numbers at the start or the likes of '[disc 1]' at the end, this script helps remove that unwanted information quickly and easily.



Let a script scoop up all of your orphaned tracks into a playlist of their own.

Tracking control

Once your track data is in order, scripts can also assist with playback controls. Needle Drop (http://dougscripts.com/136) enables you to audition a selection of tracks in automated fashion, after defining playback length and an intro point. You can for example play 10-second bursts from two minutes into every track from a specified playlist.

Another handy script is Make Bookmarkable (http://dougscripts.com/260), which turns the file type of selected AAC tracks into M4B, making them 'bookmarkable' – that is, enabling playback to resume where you left off. The Make UN-Bookmarkable script (http://dougscripts.com/296), as you might well imagine from its name, reverses the process.

Our final script choices involve taking ▶

Added scripts

There are many third-party apps and tools designed to help you get more from iTunes, and some of them can add scripts to it so you can access their features from within Apple's jukebox software without having to manually launch them first.

A notable example of this is iTuneMyWalkman: it has an Install Scripts button, which you can click to add four items to iTunes' scripts menu, including shortcuts for updating your MP3 player with your latest tracks and accessing iTuneMyWalkman's settings. Check any other music management tools you might be using to see if any options for adding iTunes scripts exist.

Windows scripts on your PC

Thanks to VBScript, Windows' own official scripting language, it's possible to use scripts in conjunction with iTunes on a PC too (as with any Windows app, potentially). However, whereas iTunes on the Mac has official support for AppleScript, the Windows version doesn't have any special features for incorporating VBScript. You'll find scripts at sites such as http://samsoft.org.uk/iTunes/scripts.asp.

Download a script and save it into an easily accessible folder. In iTunes, select the tracks, albums or other media items you wish to run the script on. Switch back to Explorer, then double-click the script file itself to run it. It's not the most elegant of solutions, but it does work.



iTunes on Windows doesn't support scripting in the same way as in OS X, but you can run scripts from outside iTunes by double-clicking them.

If you can't find an existing script to answer your personal needs, take matters into your own hands

your experience outside of iTunes in various ways. Want to discover more about what you're listening to? Search Wikipedia (http://dougscripts.com/419) might help: you'll be asked whether you want to make a search based on the track that's currently playing or the track that's currently selected, then choose whether to search for the artist, album or composer.

Another set of scripts enables you to export track information from iTunes. Although this can be done easily enough using File > Library > Export Playlist, the resulting text file is complicated, huge and unwieldy. Instead, we recommend Album-Artist to HTML Table (http://dougscripts.com/007), which exports a list of your artists and albums to an HTML document, which you can open in a web browser. (Optionally, it can also export associated tracks as well as artists and albums, but processing that level of information takes a long time, so we don't recommend it.)

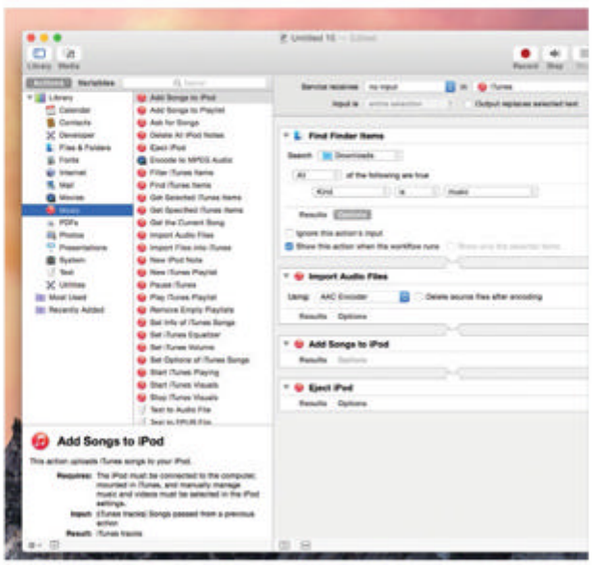
The script has a couple of quirks. First, you need to order your track list by album or artist for reliable results: click the Songs tab to view tracks in list form, then click one of the column headings – either Artist or Album – to sort the list. Second, don't let the script open a browser when it's finished or you'll likely get an error. Instead, click Done and manually open the file it outputs.

Another export option worth a look is Playlist to papercdcase.com (http://dougscripts.com/308). This enables you to export up to 28 tracks from a playlist to papercdcase.com (the site opens in Safari), which cunningly formats the data into a PDF file that you can then print and fold into a CD envelope, if you get your origami skills in order.

Code your own

If you can't find an existing script to address your personal needs, it's time to take matters into your own hands. The simplest way to do this is to use the Automator app that comes with OS X to create your own scripts.

You'll find a selection of Music actions devoted to iTunes commands, enabling you to automate tasks like creating playlists, setting the equalizer, updating



Can't find a script to do your bidding? Use Automator to build your own.

Donating to the cause

Many of the scripts provided at the Doug's AppleScripts for iTunes website are free to download and use, but you'll be asked to consider donating to help fund future development. There's no minimum and no obligation, but as the author points out, creating and maintaining scripts has become like a part-time job for him.

Alternatively, consider purchasing one of Doug's apps through the site, such as TrackSift.



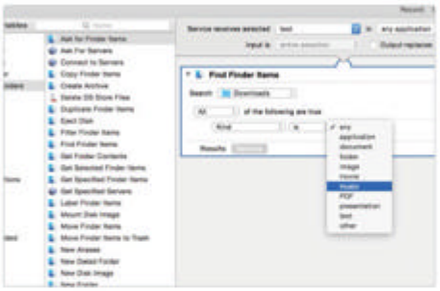
Doug has compiled several useful scripts into real apps, available from the Mac App Store.

HOW TO | CREATE AN iTUNES WORKFLOW IN AUTOMATOR



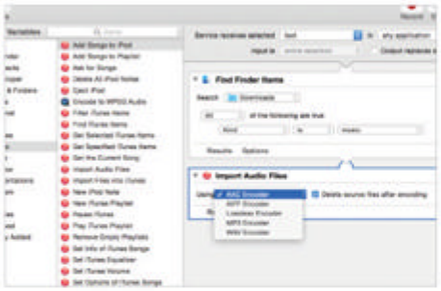
1 Set up workflow

Launch Automator from the Applications folder. When prompted for a document type, select Service and click Choose. Set 'Service receives selected' to 'No input', then click 'Any application', choose Other and select iTunes so the service is accessible only in iTunes itself.



2 Locate music

If you don't see Files and Folders in the leftmost column, go to View > Arrange Actions by > Category, then select that category and drag 'Find Finder Items' into the workflow on the right.. Set the action to search your Downloads folder, and to look for files whose kind is 'music'.



3 Import files

From the Music category, drag 'Import Audio Files' into the workflow beneath the Find Finder Items action. Pick the format to encode to (usually AAC or MP3). Tick 'Delete source files after encoding' if you wish to have the service remove the originals after conversion.



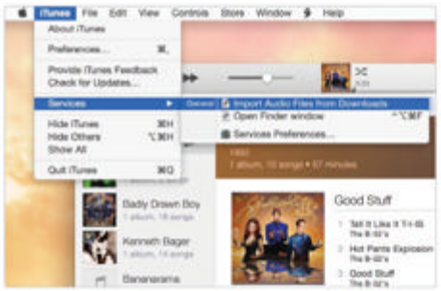
4 Test script

Download or copy (but don't move) some music files into your Downloads folder if there aren't any there to practise on. Click Results at the bottom of each action, then click Run to test the script. You'll see the results of your script appear in each of the boxes as it's processed.



5 Check results

If the service has performed as it should, you should find each of the required tracks in your iTunes library. If you chose to delete originals, they'll be gone from your Downloads folder, and the converted tracks will now be inside your iTunes Media/Music folder in the format you chose in step 3.



6 Save and run

Choose File > Save, give your service a suitably descriptive name and click Save. In the future you'll be able to run the service on any music files in your Downloads folder by switching to iTunes, choosing iTunes > Services and selecting its name in the list.

and ejecting your iPod and more.

On their own these actions don't do much that you can't already do in iTunes itself, but the trick is knowing how to stitch these – and other available actions – together to create a script that can be used to automate repetitive tasks and carry out useful functions with minimal effort.

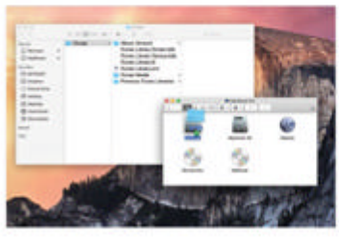
To get an idea of how it works, follow the step-by-step guide just above, which explains how to create a simple script that enables you to take music files from your Downloads folder and move them to your Music folder, plus import them into iTunes at the same time. The script finishes by deleting the original files in the Downloads folder to prevent unneeded multiple copies ending up scattered all over your hard drive.

The guide above is customisable, too – for example, you can easily select a different source folder instead of the Downloads folder, choose which format you wish the imported files to be encoded to, and opt to keep the original files if you prefer.

Whether you choose to use a script created by someone else or decide to build your own from scratch, you'll find that scripting will help transform the way you use iTunes, helping you get more from it and making your library easy to manage, too. In fact, you might not want to stop…

Back up before you begin

None of the scripts we've covered here does anything drastic to the contents of your iTunes library, but other scripts can have a pretty devastating effect. Before jumping in and using one, take the time to back up your iTunes folder in its entirety – just in case. Even better, of course, is to have some sort of automated backup scheme in place for all your data, not just your iTunes library.



Don't risk precious music files being corrupted – ensure you have a backup.

Create your own ringtone

Save a selected portion of an iTunes song as a free custom ringtone

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
iTunes 12, a track you wish to use as a ringtone, an iPhone

Surrounded as we are by mobile phones and other portable devices, we're bombarded by beeps and dings almost everywhere we go. It's estimated that the ancient default Nokia ringtone is heard some 20,000 times every second of the day and night somewhere around the world. Even Francisco Tárrega, composer of the tune on which it's based, would be sick of it by now!

One way to stand out from the crowd and personalise your iPhone is to use a custom ringtone. On these pages, we'll show you how to create your own and sync it to your iPhone using iTunes. You can even assign it to specific contacts so you know who's calling without even having to look.

Best of all, it won't cost you a penny. In some previous versions of iTunes, there was an option to buy a ringtone version of a song you'd previously bought, but this option is missing from iTunes 11 and 12. No loss, though: the option required you to pay for the ringtone version of your track, but why would you want to pay again, even if it's just 69p or 99¢, for a song you've already bought? We'll show you how to craft a ringtone from a track in your iTunes music library in minutes, for free.

Legal questions

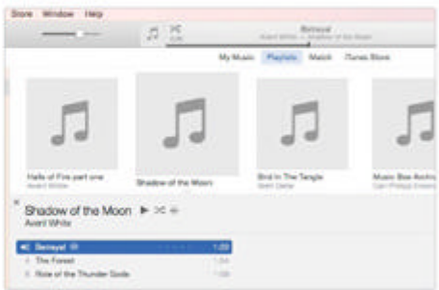
What about issues of copyright? Is it legal to create a ringtone from a track you already own the rights to play? Since 2009, all songs offered by the iTunes Store (known as 'iTunes Plus Products') come with no usage restrictions, so there's no problem with these. In the case of older tracks, it's always been permissible to copy a song to multiple devices and make backup copies of it. The only legal nicety would be that a ringtone is usually an excerpt from a complete song, which is technically not permitted (nor is editing, sampling or remixing, come to that).

Nobody has ever been prosecuted for creating and using a ringtone, but if you're worried, make sure you use an iTunes Plus track as explained here, or compose your own in GarageBand!

One vital thing to bear in mind: an iPhone can be synced with only one iTunes library, so you can't import a ringtone from another – see step 7.



HOW TO | SAVE AN iTUNES TRACK AS A RINGTONE, THEN SYNC IT



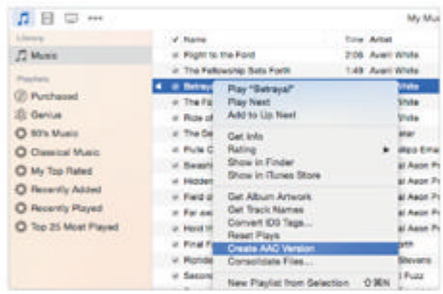
1 Note the snippet

First play your song in iTunes, and note down the start and end times of the portion you want as your ringtone. 40 seconds is the maximum theoretical duration for a ringtone, though by default an iPhone will ring for only 20 seconds before going to voicemail.



2 Specify start and end

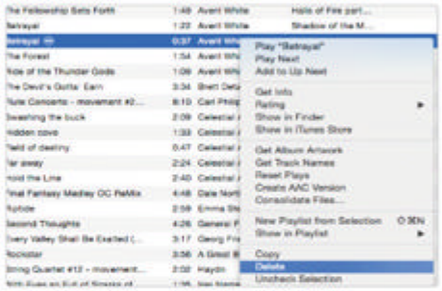
Right-click the song in iTunes, select Get Info, and click the Options tab in the Info panel. Make a note of the song's current Stop Time – you'll need it in the next step. Now tick Start and Stop, enter the start and end (stop) times from step 1, and click OK to save that segment.



3 Save a copy

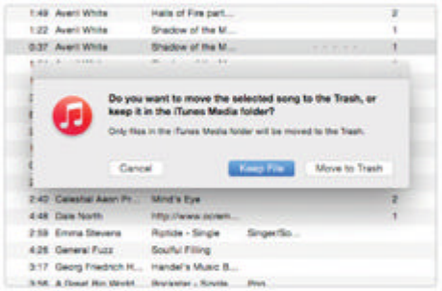
Right-click the song in your library again, and select Create AAC Version to create a copy of the track with the new start and end times. To avoid playback problems, repeat step 2, restore the start and end times on the original track to their original values, and untick Start and Stop.

HOW TO | SAVE AN iTUNES TRACK AS A RINGTONE (CONTINUED)



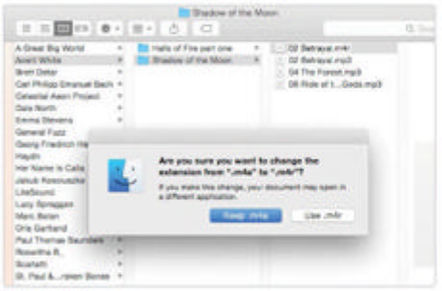
4 Delete the new track…

Right-click the new AAC copy and select Show in Finder – this will make things a little easier in step 6. Leaving this folder open, return to iTunes, right-click the new track again, and select Delete. Unless you've previously ticked 'Don't ask me again', you'll be asked to confirm.



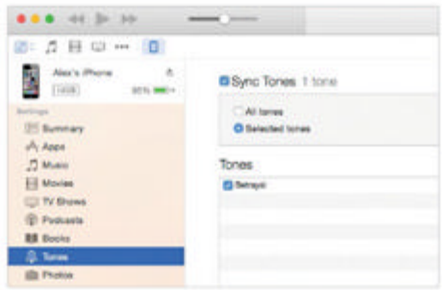
5 … but keep the file

Go ahead and click Delete Song. Next you'll be asked whether you want to trash the file or keep it in the iTunes Media folder. This time, click Keep File. It will be removed from your iTunes library but not trashed. The file itself is still there in the folder we opened in step 4…



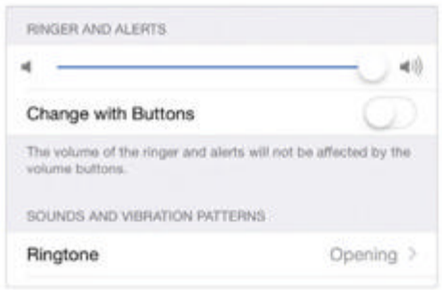
6 Reimport as ringtone

In Finder, locate the file (it will be in your iTunes Media folder, in a folder named after the album it came from), and change the filename extension from .m4a to .m4r. Confirm when asked to do so. Then simply double-click the file to add it back into iTunes as a ringtone.



7 Sync to your iPhone

Connect your iPhone to your computer. Click the device icon among the icons in the top left (and select the phone, if you use more than one device), then click the Tones tab and tick Sync Tones. Click All Tones (or Selected Tones and then your new tone), and finally click Apply.



8 Set as ringtone

Your new ringtone(s) will be installed on your iPhone. To change your default ringtone, tap Settings > Sounds, then Ringtone. Custom ringtones you've installed will be at the top of the list; simply tap the one you want. Optionally do the same for text, mail and other alert tones.



NO AAC OPTION?

Don't get a 'Create AAC Version' option in step 3? Go to iTunes > Preferences and on the General tab locate 'When you insert a CD'. Click Import Settings, then under 'Import Using' select AAC Encoder, and for Setting choose iTunes Plus. Click OK in both dialogues to enable the option.



9 Assign to a contact

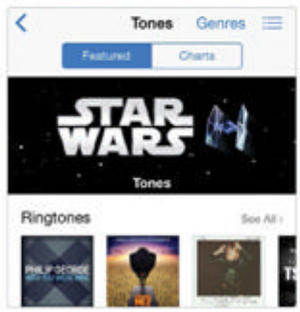
Want to assign a personal ringtone to one of your contacts, so you know who's ringing even without looking? In the Contacts app, tap the person, then Edit (top right). Swipe down if need be, and tap Ringtone to set a tone just for this person. Set a text tone too if you like.

Top tips: alternative options

There are a few other ways to create a custom ringtone. You can compose your own in GarageBand, either using an iPhone Ringtone template or starting a project from scratch, using Apple Loops to build a composition and exporting the result using Share > Send Ringtone to iTunes. The only catch with this method is that you do need to have at least a little knowledge of GarageBand.

Alternatively, you can tackle the project on your iPhone. Search the App Store for Ringtone Maker and a range of similar apps, which will enable you to select a song on your iPhone, cut it to length and re-sync it to your phone, by way of iTunes' File Sharing facility.

Finally, you can buy tones in the iTunes Store on an iOS device. Ringtones cost 99p/$1.29, alert tones 79p/99¢.



On your iPhone, open the iTunes Store and tap More > Tones to buy musical ringtones and alert tones you can assign to events.



Move your iTunes library

Free up space by moving your music and other media to another disk

SKILL LEVEL
Could be tricky

IT WILL TAKE
45 minutes or more

YOU'LL NEED
iTunes 12, an external hard drive

Generally speaking, it's not normally a good idea to move any of the files and folders you'll find in the iTunes folder on your hard drive – it could result in iTunes becoming unable to find your music and other media. That said, however, there are some reasons you might legitimately wish to move your iTunes library.

You might, for example, buy a new Mac and want to move your songs and movies from your old computer to your new one, or possibly just copy all your media over so that you can enjoy them on both. You might find that you're running out of space on your hard drive and want to move your space-consuming media files to a second disk or external drive connected to your computer. Or you might want to perform a manual backup for safety's sake before experimenting with scripts (see page 74) or other tweaks.

It's worth noting that OS X is happiest if at least a third to a half of the startup disk is free – and media files take up a lot of space…

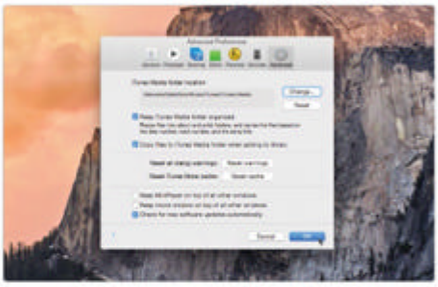
Of these three likely scenarios, only one absolutely requires you to move your iTunes library manually: moving it to another drive to save space on the disk you're using now.

You won't normally need to back up manually: if you're using Apple's Time Machine to save backups (either regularly or specifically before trying something new), then your iTunes library and purchased items will be backed up along with everything else whenever Time Machine works its magic. That said, there's no harm in creating an additional backup manually – just remember not to set the new location as the default in iTunes' Advanced Preferences, or iTunes will attempt to save future purchases there instead of adding them to your working library.

QUICK TIP

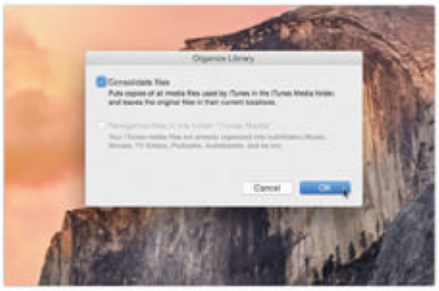
Your iTunes library (the folder containing your media and the iTunes Library.itl file) is named 'iTunes' by default but you can rename it whatever you like. If you're creating backups, copies or extra libraries, it's worth giving each one a unique name so you can tell which is which at a glance. It's also possible to have multiple libraries. For example, you can use separate libraries to keep your music on your computer but those space-consuming movies on an external hard disk. See page 82 for details.

HOW TO | TRANSFER YOUR ITUNES LIBRARY TO AN EXTERNAL DRIVE



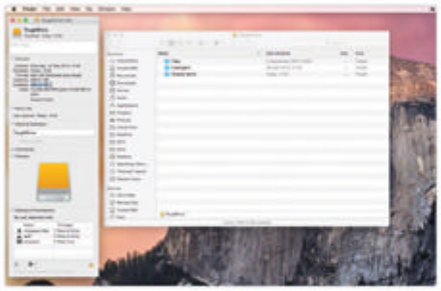
1 Consolidation

Launch iTunes and head to Preferences from the iTunes menu (Mac) or Edit menu (PC). Click the Advanced tab and tick the box next to 'Copy files to iTunes Media folder when adding to library'. Now click OK to ensure that all your files are stored in the iTunes Media folder.



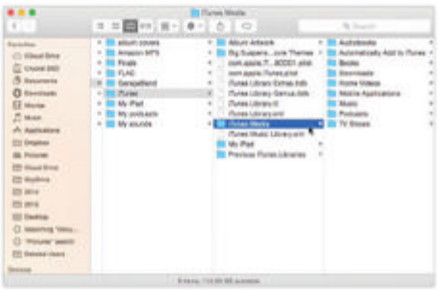
2 Organisation

Head to iTunes' File menu and select Library > Organize Library. In the dialogue that appears, tick both boxes if both available, or just the one if not. This will tidy up and consolidate your iTunes library so that your media is stored in the one place, not scattered over your drive.



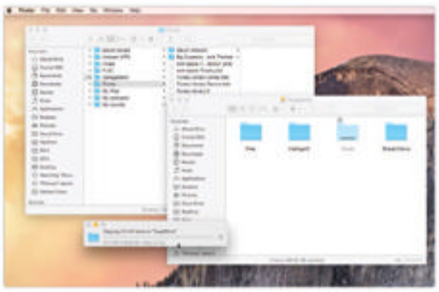
3 Prepare your drive

Connect the new disk or drive to your Mac and make sure there's enough free space available on it to store your iTunes library, plus further room to add more media. To do this, select the drive in the Finder and press ⌘+I to see its available storage and capacity.



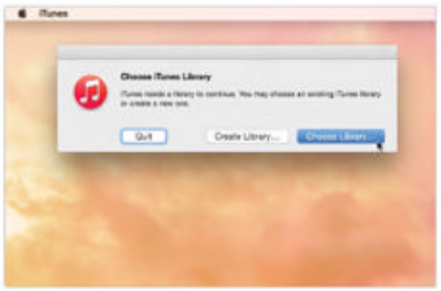
4 Find your folders

If iTunes is running, make sure you quit it before continuing. Locate your iTunes folder, which is normally found in the Music folder in your home folder. If it's not there (if, for example, you've moved it), look under the Advanced tab in iTunes' Preferences to find its location.



5 Drag and drop

Drag the entire iTunes folder (not just the iTunes Media folder within it) to your external drive to copy it. The larger it is, the longer this process will take; the connection between your drive and Mac (USB, Thunderbolt or whatever) will also determine the speed of transfer.



6 Switch locations

When finished, hold down ⌥ (or [Shift] on a PC) as you launch iTunes again. In the dialogue, click Choose Library, navigate to the new location, select the new iTunes folder, and Open. Play a few songs to verify that all is well. You can now delete the original folder.

Moving to a new Mac

If you buy a new Mac, Setup Assistant can help you transfer your songs and other files from your old computer. If you want to copy your iTunes library rather than move it, however, then the manual approach may be better.

You can re-download your iTunes Store purchases on multiple computers, provided that you use the same Apple ID on all of them, and you can sync your entire music collection (including tracks you've added yourself rather than bought from the Store) using iTunes Match, if you subscribe to it. However, it can be simpler and faster to copy your existing library, complete with its playlists, ratings, artwork and all.

In these days of huge hard disk capacities, you might think there's no point in moving your iTunes library to save space. However, particularly if you have a MacBook Air or other computer with a solid-state drive, you might actually have a relatively small main hard drive. OS X is happiest if at least a third to a half of the space on the startup disk is free, and media files can consume a huge amount of this space. As you amass more – movies and video in particular – your hard drive will steadily fill up. To keep your Mac running as quickly and smoothly as possible, it can be very cost-effective to move your space-consuming media library to an external drive (or a second internal hard drive if appropriate).

Things to remember

There are three important things to keep in mind. First, if you set a new location for your iTunes library, it will work only if the disk is accessible, so if it's an external drive you'll need to make sure it's connected and powered up before you launch iTunes or iTunes won't see it.

Second, any items you bought from the iTunes Store will by default have been saved in your iTunes Media folder but, depending on how you imported items into iTunes, your library may list items that are actually stored elsewhere. Make sure you consolidate the library first (as explained in steps 1 and 2 above), or such items won't be moved with your library and iTunes may not be able to find them afterwards.

Finally, if you're moving your library rather than creating a copy or backup, verify that iTunes knows where to find it before you delete the original. Move your original iTunes folder to your desktop before relaunching iTunes (holding ⌥ as in step 6) and pointing it to the new library location. Double-check afterwards by going to the Advanced tab in Preferences and verifying that it has remembered the new location.

Use multiple iTunes libraries

Create separate libraries for different users or different devices

SKILL LEVEL
Taking things further

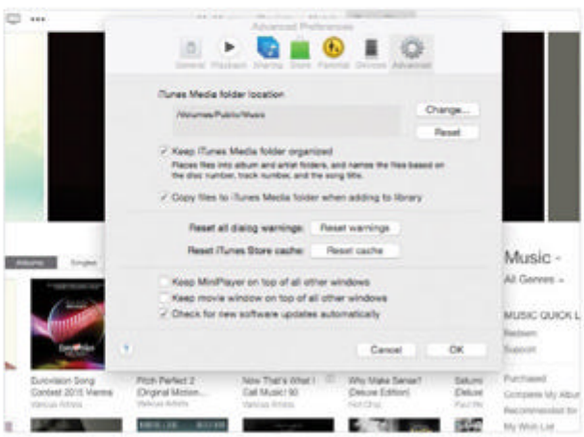
IT WILL TAKE
30 minutes or more

YOU'LL NEED
iTunes 12, a music collection

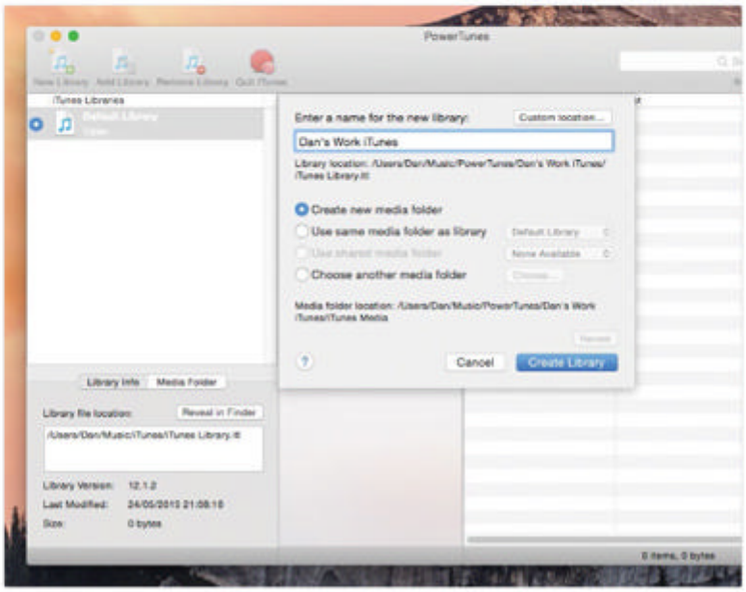
There are a few different ways of sharing your iTunes music with other users. It's possible to share a library across multiple user profiles, but you might not have set up your Mac or PC using the built-in user profiles for each person who uses it. Perhaps you're the sole user of your computer, or you're the main user and other family members or friends only occasionally require access.

In either event, setting up separate user profiles just to share access to iTunes may not be a practical or efficient solution. The good news is that you can provide shared access from within a single user account, simply by setting up and switching between multiple iTunes libraries.

Aside from giving other members of the household limited access to iTunes through your user account, another important use for multiple libraries is when you have a number of different portable devices – iPads, iPhones and iPods – that you want to keep in sync. An iOS device can be synced with only one library at a time, so setting up a separate library for each of the devices you own makes it a simple, painless exercise to sync them all automatically while simultaneously having different tracks on each: you simply set up a custom library from the media already on your hard drive for each device, then let iTunes keep them perfectly in sync – no need to fiddle about with manually managing music and video or laboriously maintaining custom playlists for different devices and copying them over to each device one by one. The step-by-step guide on the opposite page explains how all this works.



To prevent duplicates being created, avoid copying media files when using multiple libraries.



PowerTunes – a simple, elegant solution for managing multiple iTunes libraries.

Multiple libraries are useful for giving other users access and syncing multiple devices

A third-party solution

It can however become more than a little fiddly managing and switching libraries using iTunes' own controls, remembering to import new tracks into each separate library and so on. While a number of third-party solutions exist to make this easier for older versions of iTunes – try Libra 2.1.9, for example (for OS X 10.2 and iTunes 4 to 10.4.1, from www.sillybit.com/libra) – we found one Mac-only utility compatible with iTunes 12 and OS X Yosemite for managing libraries.

Luckily, that utility – PowerTunes – is a doozy. It costs $19.95, but you can download a fully functional 30-day trial from www.fatcatsoftware.com/powertunes. You'll find it offers more than just a friendlier tool for managing multiple libraries: you can also use the software to split your music collection over multiple folders, plus share music and libraries between multiple users on the same machine.

Once you've downloaded it, drag it to your Applications folder. Then, launch the app. You'll see the currently selected library appear in the list; if you've already added libraries following the step-by-step guide opposite, click Add Library to browse for them and select them.

From here you can create new libraries and remove unwanted ones, choose which library to open in iTunes and – most critically for the purposes we're concerned with here – perform useful tasks such as merging libraries together, move or copy media folders without affecting the library itself, and search for 'dead tracks', which enables you to locate missing tracks or simply delete an outdated reference from your iTunes library quickly.

PowerTunes is pretty simple to use, but there's comprehensive help should you need additional instruction on using any aspect of it.

HOW TO | MANAGE MULTIPLE LIBRARIES WITH ONE USER ACCOUNT

1 Quit and relaunch

The first step is to create a new library for the device or person who wants it. Make sure you quit iTunes if it's open. Now hold down the ⌥ key (Mac) or [Shift] key (Windows) and launch iTunes again. Keep the ⌥ key held down until you see the 'Choose iTunes Library' dialogue box appear. Then click the Create Library… button to open the 'New iTunes Library' dialogue box.

2 Set up new library

You'll be prompted to name a new folder – this is where your new library, including any new media files you copy to it, will be stored. You don't need to save this in another location – you'll always be prompted to browse for a library when switching later on (see below), so keep things as simple as possible by storing your libraries in the same folder. Give the new folder a suitable name, such as 'Bob's Library' or 'My iPad Library', then click Save. iTunes will now open with your new library selected.

3 Tweak library preferences

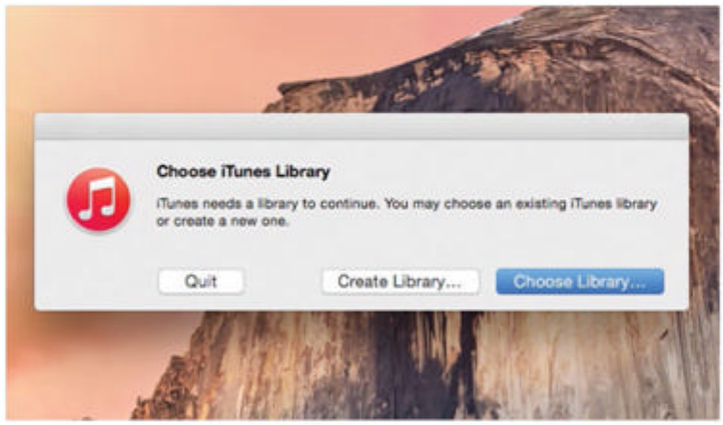
Go to the iTunes menu (Mac) or Edit menu (Windows) and select Preferences. If you plan to share this library over your network, give it a suitably descriptive name to match the folder you created in the previous step, then switch to the Advanced tab. Make sure that the 'Copy files to iTunes Media folder when adding to library' box is unticked before clicking OK – this will leave all media files you add to your library in their original location rather than duplicating them inside your new library folder and filling up your valuable disk space.



QUICK TIP

The best place to back up your iTunes library is to an external hard drive – visit https://support.apple.com/HT201625 for a complete guide to doing so.

Creating a new library is a simple case of choosing a name and folder location – the default Music folder is ideal for convenience.



4 Build your new library

Add material to your custom library in the usual manner – you can drag-and-drop files and folders directly into the iTunes window, or open the File menu and select Add to Library (Mac) or Add File to Library/Add Folder to Library (Windows). Remember, if you're building separate libraries for different devices, add only those items you're planning to sync with that device, otherwise you might as well use a single library and manually select what to sync.

5 Connect and sync

Once your new library is complete, you can connect a specific device to sync with it – but this is where things get tricky. If you've already connected your iPad, iPod or iPhone to the main iTunes library on your computer, then when you select a new library to sync with it you'll be warned that doing so will erase all the media on your iOS device. This means that all existing media – including playlists – will be erased from your device before the content stored in this library is synced in its place.

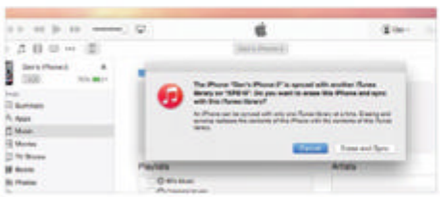
If you've set up this library for the specific purpose of syncing to your chosen iOS device, and you're happy to replace whatever's currently on there with the contents of your new custom library, then click Erase and Sync. You may now be prompted to transfer your device's purchases or risk having them removed, so click Transfer if this is the case. Then it's a matter of waiting: the first sync will take some time, but subsequent updates should be much quicker.

6 Connect without syncing

If you'd rather not lose content that's already on the device – or you plan to continue syncing content to it using another library – click Cancel instead. If you want to be able to add content from multiple libraries to your iOS device, you'll have to configure iTunes to allow you to manually manage videos and music. This setting will apply across all your libraries and means automatic syncing will no longer be an option for that device. If this isn't a deal-breaker, make sure the correct iOS device is selected, go to its Summary tab, scroll down and tick 'Manually manage music and videos', then click Apply. To add media to your device manually, select the device using the button at the top left of the iTunes window (if the device isn't selected anyway), then under 'On my device' on the left of the screen, select the type of media you want to add (such as Music). Now click Add To (top right). You'll see your music listed in the left-hand pane and the contents of your device on the right; drag tracks from the former to the latter to add them, and click Done in the top right when finished.

7 Managing multiple libraries

If you launch iTunes in the usual way in future (double-clicking its icon, choosing it from the OS X Dock or Windows Start menu, or so on) it will default to the last library opened. To open a different library instead, you'll need to hold down the ⌥ key (Mac) or [Shift] key (Windows) as you launch iTunes, then click Choose Library to select the folder containing the library you wish to switch to.



If you're creating a new library specifically for syncing to a mobile device, proceed with caution and be sure you're prepared to erase all the content already on the device.

Set up multi-user access

Create a single iTunes media folder for sharing with your Mac users

SKILL LEVEL
Taking things further

IT WILL TAKE
1 hour

YOU'LL NEED
iTunes 12 or later, a music collection, individual user accounts

Do you have multiple users on your Mac? If so, you might notice that iTunes creates individual folders for each user in the Home/Music folder. That's great if you'd rather not listen to your kids' *Frozen* soundtrack collection, but it's not so good if you want to share lots of stuff – music, movies, TV shows, and so on – because you could end up with gigabytes of duplicated content, your hard disk space rapidly shrinking and a lot of wasted hours as everyone spends time on your Mac needlessly populating their own separate iTunes folders.

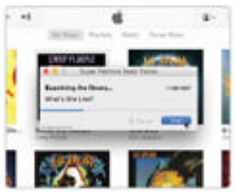
The smart way around this is to create a shared iTunes folder, which might be located either in Your Mac/Users/Shared or on an external hard drive that's connected to your Mac (whether wirelessly or via cables). Either way, everyone who uses your Mac can still have their own customised iTunes library – the only real difference is the way in which media content is shared.

Everyone who uses your Mac can still have their own customised iTunes library with this method

Fix it up

You don't have to start from scratch to replace a jumble of user folders with a shared folder. The only tedious thing about merging an existing set of previously separate iTunes folders is that your new library will inevitably be filled with all kinds of inconsistencies, from duplicated content to incorrectly tagged files with missing artwork, and sorting these out will take a little work. The step-by-step guide on the opposite page reveals all you need to know about organising your family's media libraries, then combining them all together in one central location.

QUICK TIP



Organising your shared library will leave links to duplicate tracks you've removed. To get rid of these, go to www.dougscripts.com and search for 'Super Remove Dead Tracks'. Download the script available there and run it on all user accounts.

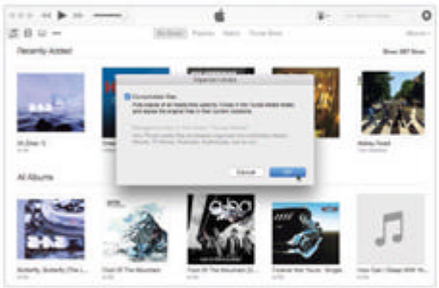


HOW TO | SET UP A CENTRALISED, SHARED iTUNES MEDIA LIBRARY



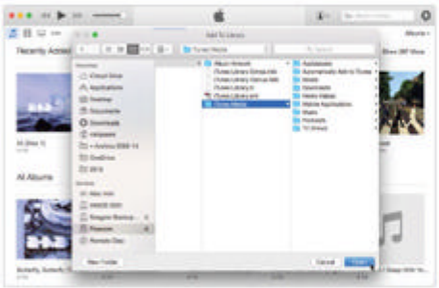
1 Share Media library

Pick a shared folder (on Mac or external drive), go to iTunes > Preferences > Advanced, click Change and swap the default folder from iTunes/Music/iTunes to this new location. Make sure 'Keep Media folder organised' and 'Copy files to iTunes Media folder' are ticked. Click OK.



2 Consolidate library

When prompted, choose Yes to move and rename files. Then go to File > Library > Organise Library, and tick 'Consolidate Files'. If the option is not greyed out, tick 'Reorganize files'. Click OK. Once finished, log off or switch user, and repeat steps 1 and 2 for each user account.



3 Add shared content

Once the libraries are organised, select the media to include in your library via File > Add to Library. Select the iTunes Media folder to include everything, or choose specific folders or files. Additions to other user libraries won't automatically show in yours in future.



4 Remove duplicates

It's likely your newly consolidated library contains anomalies, such as duplicate entries, missing artwork or incorrect metatags. Hold ⌥ and go to View > Show Exact Duplicate Items to find multiple entries. Manually delete each duplicate (or see the tip on the left).



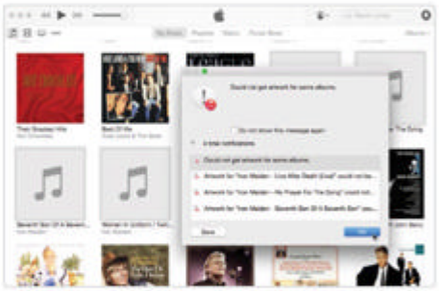
5 Sort out file tags

iTunes no longer allows you to fix missing/incorrect file tags for your entire library; instead, you need to select the tracks in batches, right-click and choose Get Track Names. iTunes will then attempt to download the correct information from its online database.



6 Make manual changes

You can also manually add information. Right-click individual tracks to edit them in isolation, or select an entire album and choose Get Info (click Yes when warned about editing multiple items) to apply common tags such as album, album artist and genre.



7 Fill in album artwork gaps

Select File > Library > Get Album Artwork to fill in most of the gaps left by missing artwork via the iTunes library. Some albums – especially older, more obscure ones – will be missed out. iTunes will alert you to what's missing, allowing you to make a note of the affected albums.

Help for larger libraries

iTunes' organisational tools work best on small batches of files – if you're faced with wading through a lot of unknown or mismatched files, then you should enlist the help of a tool like Jaikoz ($30, jthink.net/jaikoz/), which quickly brings order (as well as missing artwork and consistent naming) to your music collection. Jaikoz works on both PC and Mac, and a free trial is available.



Set up an iTunes server

Place all your media in one central location for easy network access

SKILL LEVEL
Could be tricky

IT WILL TAKE
Depends on how much media you wish to transfer

YOU'LL NEED
iTunes 12 or later, a NAS drive or an old Mac or PC

Sharing your iTunes library over your home network with other computers and devices is great, except that your host computer must always be on in order for any other devices to access its content. A good alternative is to create a centralised repository where you can store all your iTunes media in one convenient, easily accessible location – and that can be done with the help of a dedicated hardware server.

An iTunes server can be either a single computer, such as an old PC or Mac you use for the purpose, or a dedicated network hard drive that has iTunes server functionality built-in.

The NAS option

A network hard drive, often referred to as a NAS (Network Attached Storage) drive, is easy to set up – the step-by-step guide below reveals how simple a task it is. There are some restrictions: you'll be able to access it only from a Mac or PC, some stream only music and ignore video, and there are also issues with iTunes updates 'breaking' the software, making it impossible to connect to your NAS drive.

Create a centralised repository where you can store all your iTunes media in one convenient location

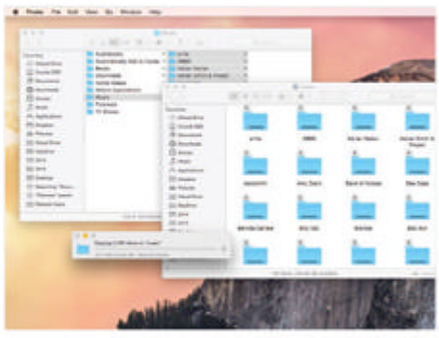
A significant problem occurred back in 2011, with the release of iTunes 10.5 affecting a wide number of NAS drives. Some were eventually fixed by firmware updates, but others weren't. So it's important that you don't buy a network drive until you've verified what its exact iTunes functionality is and whether or not it works with the latest version of iTunes. A good way to do this is to visit the online support forums for the drive in question and see if there are any current problems. If there were any previous problems, how quickly were they addressed? This can give an indication of how the maker may respond to future ones.

If you have an old Mac or PC lying around with little purpose in life, an alternative to using a network hard drive is to use the old computer as a dedicated, always-on iTunes server. The step-by-step guide opposite shows you how to do this using a Mac; the process is broadly similar on the PC too.



NAS drives such as this Buffalo work well as iTunes servers.

HOW TO | SET UP AN iTUNES SERVER ON YOUR NAS



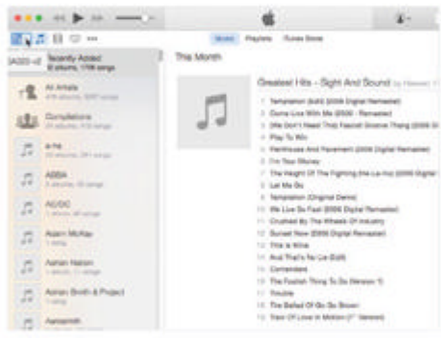
1 Copy files to drive

Start by copying – not moving – your media files to a suitable folder (such as Media) on your network hard drive. (See page 80 for advice on moving/copying.) If necessary, make sure all the content is organised logically in folders such as Music, Photos and Movies.



2 Set up server

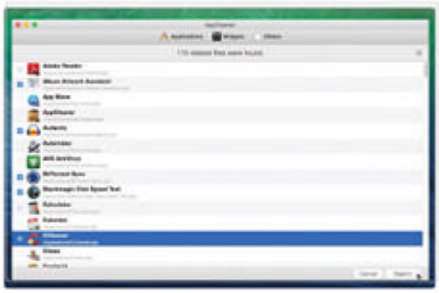
Log on to your network drive's web interface, following the instructions supplied with it. Locate the iTunes Server section. Enable the server and point it to the folder you copied all your media to (you may find this under a different section, such as general media settings).



3 Connect to server

Once it's set up, your network drive's server should be accessible in iTunes. You don't need to switch on Home Sharing, but you will find certain restrictions: our Zyxel NSA-325 is capable of streaming only music, for example, and there's no access through an iPod or iPad.

HOW TO | SET UP AN OLD MAC AS A DEDICATED ITUNES SERVER



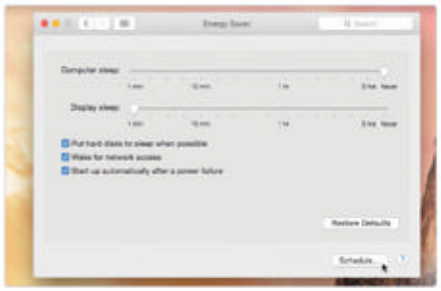
1 Prepare the computer

You can go the whole hog and reinstall OS X from scratch on to a freshly formatted hard drive, or simply perform some clean-up tasks to free up space for your media files – uninstall unused programs, clear out unwanted files, and so on. Check out www.techradar.com/1035635.



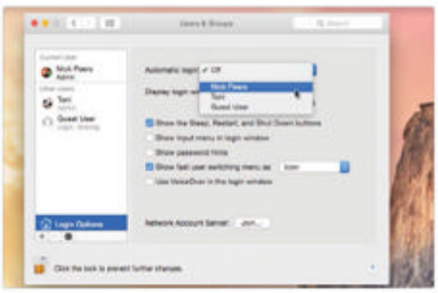
2 Transfer media

Transfer your media collection from other computers to the new one over the network manually or by using Migration Assistant (in the Applications/Utilities folder on your server Mac). Select the Music, Movies and Pictures folders when prompted to copy all your media.



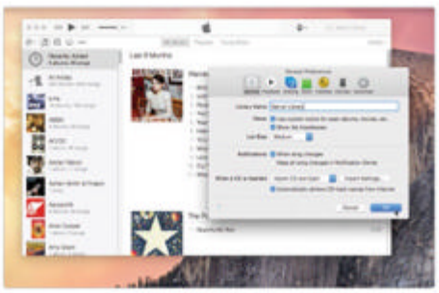
3 Set up energy options

Open System Preferences > Energy Saver. Set Computer Sleep to Never and Display Sleep to 1min. Tick 'Put the hard disk(s) to sleep when possible', but also tick 'Wake for network access' and 'Restart automatically after a power failure' so it's set up for unattended use.



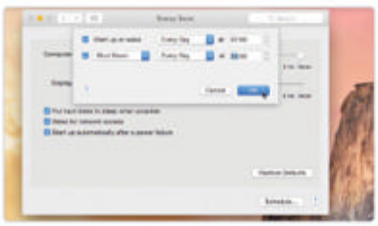
4 Configure boot options

Right-click the iTunes dock icon; select Options > Open at Login from the pop-up menu so that iTunes starts up with your Mac. Open Users & Groups preferences, select the current user, then click Login Options. Turn Automatic Login on so the Mac boots to the desktop.



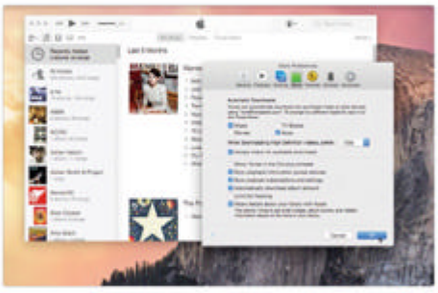
5 Tweak preferences

Launch iTunes and go to iTunes > Preferences. Give the Library a name. If you'll want to rip CDs to the server, change the 'When a CD is inserted' setting to Import CD and Eject, and tick 'Automatically retrieve CD track names from Internet' so it's fully automated.



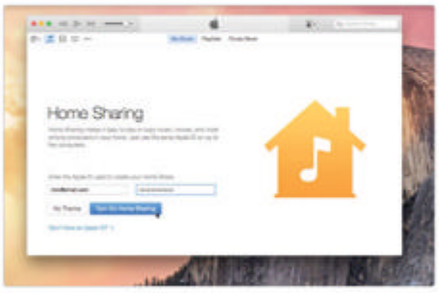
QUICK TIP

Save a tiny bit more energy by configuring your Mac to power off and on at set times: from the Energy Saver preferences pane, click the Schedule button and set the times you want the computer to sleep/shut down and wake/start up again.



6 Auto-download

Switch to the Store tab and tick the Music and Apps options along with 'Always check for available downloads' to ensure that purchases you make on other devices and computers get added to your media server. Click OK, then go to Store > Sign In and sign in with your Apple ID.



7 Home Sharing

Select File > Home Sharing > Turn on Home Sharing. Enter your Apple ID password and click Turn On Home Sharing, then Done. You can now access the Mac's library from another PC, Mac or iOS device that has Home Sharing switched on, using the same Apple ID.



8 Verify library contents

Open iTunes on another PC or Mac and look for the server under 'Shared' in the pop-up Library menu. Click it to verify its contents and check you can access it. You can now consider removing the media it contains from your own library to free up space on your hard drive.

Expert tips for iTunes 12

Top tips and tricks to help you get more from your media

Apple's long-established music and media app has seen yet another revamp in its latest version. Here's our guide to getting the best from it…

The sidebar

iTunes 12 no longer displays the traditional sidebar in all views – not even as a fallback option in the View menu. However, something very similar appears if you choose Playlists from the views listed in the middle of the navigation bar along the top.

The column browser

The column browser remains available, too, but it's easily missed. When viewing your music, switch the sort order (using the pop-up at the top right) to Songs. Now you can enable View > Column Browser > Show Column Browser to return to iTunes' oldest layout. For movies, it's accessible when you choose Movie List as the sort order, and for TV shows when you choose Episode List.

Quick access to recent items

iTunes has provided a Recently Added Smart Playlist for years, but iTunes 12 has a fresh take on the idea. When you choose certain combinations of media kind, view and sort order at the top of your library, iTunes will display a Recently Added group above the content you've asked it to display. This makes it easy to find music bought in the last few months. You can change how far back it looks to one, three, six or 12 months under View > Recently Added, or it can be turned off if you dislike it, and it can be hidden for, say, movies but kept on for music.



Decide what you want iTunes to include in its 'Recently Added' category. Is 11 months ago still recent?

Remove duplicates

As your music collection grows, duplicate files have a habit of popping up, because for example the same track is included in several compilation albums. View > Show Duplicates will find tracks with the same name and same artist, but these may be from different albums or a studio recording and a live performance, for example. The Duplicates display page has a tab at the top to toggle between All and Same Album, which could help to narrow this down. Alternatively, hold down the ⌥ key and the View menu item becomes Show Exact Duplicate Items. This finds tracks where song, artist, album and version are all the same.

Don't import duplicates

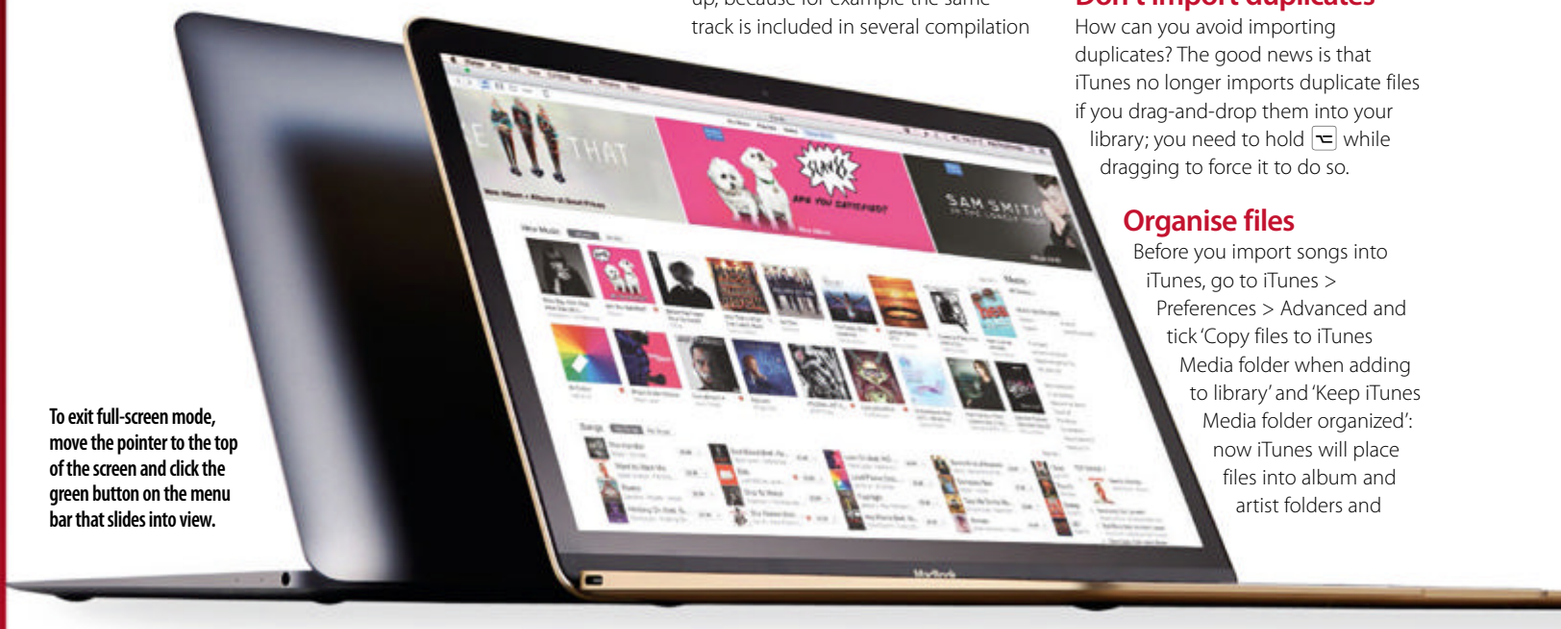
How can you avoid importing duplicates? The good news is that iTunes no longer imports duplicate files if you drag-and-drop them into your library; you need to hold ⌥ while dragging to force it to do so.

Organise files

Before you import songs into iTunes, go to iTunes > Preferences > Advanced and tick 'Copy files to iTunes Media folder when adding to library' and 'Keep iTunes Media folder organized': now iTunes will place files into album and artist folders and

QUICK TIP

MiniPlayer not appearing? It won't appear if iTunes is in full-screen mode (see page 40). Could it be hidden behind other windows? Go to iTunes > Preferences > Advanced and tick 'Keep MiniPlayer on top of all other windows'



To exit full-screen mode, move the pointer to the top of the screen and click the green button on the menu bar that slides into view.

name the files based on disc number, track number and song title.

Duplicate a Smart Playlist

Smart Playlists can save you a lot of time and trouble, but the catch is that you have to spend some time to set all the rules in one in the first place. If you've already created a Smart Playlist that does something which would be useful in the one you're planning, you can duplicate it to give you a starting point and then edit it: simply click the Playlists button to view your playlists, right-click on one and select Duplicate to create a copy. Now you can right-click the duplicate and select Edit Smart Playlist to modify it as you wish. This is also useful if you want to experiment without losing a useful existing Smart Playlist.

Go to Current Song

The Go to Current Song option (in the Controls menu or ⌘+L) jumps from wherever you are in iTunes (even if you're browsing the Store) and shows the track that's playing. In iTunes 12, this now shows the view from which you started the song – your song list if you were viewing songs, the album from which it originates if you were viewing albums, or even the playlist from which you selected it. If you change the view using the pop-up menu at the far right (from songs to albums, say), the track remains selected, so you can quickly find more from the same album or artist.

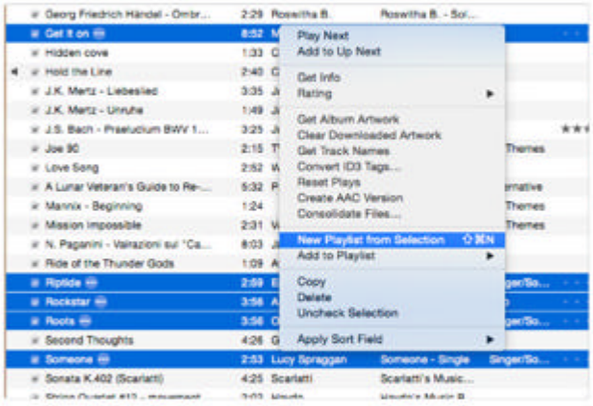
Maintain multiple libraries

iTunes can be made to use different libraries, which is great if you want to use a smaller one on your laptop but a bigger one when at home. Hold down the ⌥ key on a Mac (or [Shift] on a PC) when starting iTunes and it will ask you to create a new library or choose an existing one. Using this trick you can create as many iTunes libraries as you want on different drives, then choose the relevant one when starting up.

Create playlists quickly

From any view in iTunes 12 you can select multiple items and create a new playlist containing those items by simply right-clicking and choosing New Playlist From Selection or pressing ⌘+⇧+N.

To select multiple non-contiguous songs or videos, click on the first, then hold down ⌘ and click on each of the others you want to include. This works for albums in Album view as well, so you could create a playlist containing several albums. You can also click the + button at the bottom left corner under the sidebar to create a new playlist, Smart Playlist, or new playlist from the current selection.



To create a new playlist fast, first select the tracks you want in it, then right-click and choose this option.

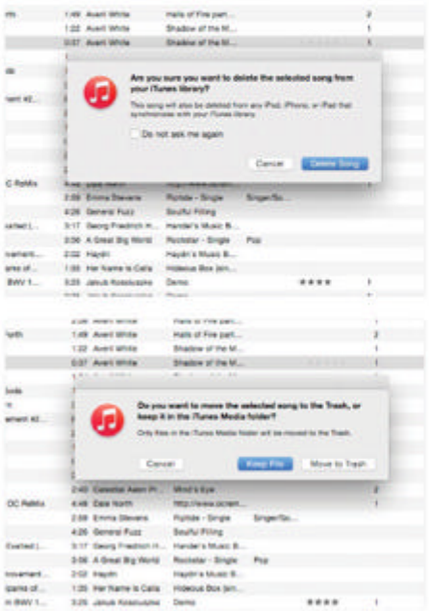
Deleting songs and albums

Say you've found a duplicate track that's taking up space for no good reason, or just a song you no longer want. It can be trickier than you expect to get rid of it. You might expect that all you need to do is click on it in your library and press the ← key. If you do this, however, you'll be presented with a choice. You can opt to remove the item from your iTunes library but keep the file, or move it to the Trash.

What's the difference? Keeping the file means the original is still on your hard disk, which might be desirable if you want to keep it as a backup or just want to trim the current library (if for example you're using multiple libraries for different devices or users) rather than clear some hard drive space. Deleting the file means it's moved to the Trash and will be permanently erased when you empty the Trash.

Note that deleting an item from a playlist, or indeed deleting an entire playlist, doesn't remove it from your iTunes library, let alone delete the file or files. A playlist is just a list. If you really want to get rid of the file, though, you can select it within a playlist and then hold down ⌥ as you press ←, then confirm that you do indeed want to get rid of it, not just remove it from the playlist.

In the Music app in iOS 8, you can delete individual songs or entire albums. Simply navigate to the unwanted track or album, swipe left, then tap Delete. Note, however, that deleting a song won't delete the track from iCloud or from the iTunes library on your computer: if you don't want it restored next time you sync, you need to delete it there or set it not to be synced.



Pressing the ← key will remove a song from your iTunes library. Permanently deleting a file is a two-stage process.

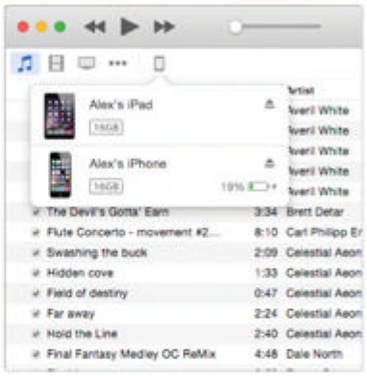
Finally, if iTunes Match (see page 98) is turned on, you can't delete music yourself on your iOS device. If space is needed, iTunes Match will remove music for you, starting with the oldest and least played songs. You can delete songs from the iTunes library on your computer, but they'll still be available from iCloud, so you can play or download them at any time.

View multiple devices

iTunes 11 introduced a new way to manage multiple iOS devices. If you connect more than one device, such as an iPad and an iPhone – either via cables or wirelessly – then the icon in the top left group will display '2 Devices' (or 3, or whatever it may be) when you move the mouse pointer over it. When you click it you'll see a pop-up window that lists the devices (along with the charge level if the device is connected over a cable). Click the name of the device you want to access, or click the eject button next to it to disconnect.

Wireless sync

Any iOS device running iOS 5 or newer can sync wirelessly with iTunes, with no need to connect via a USB cable – although you do need to plug it in the



Connect multiple iOS devices, either using a cable or wirelessly, and you can select or eject one from a pop-up panel at the top-left of the iTunes window.

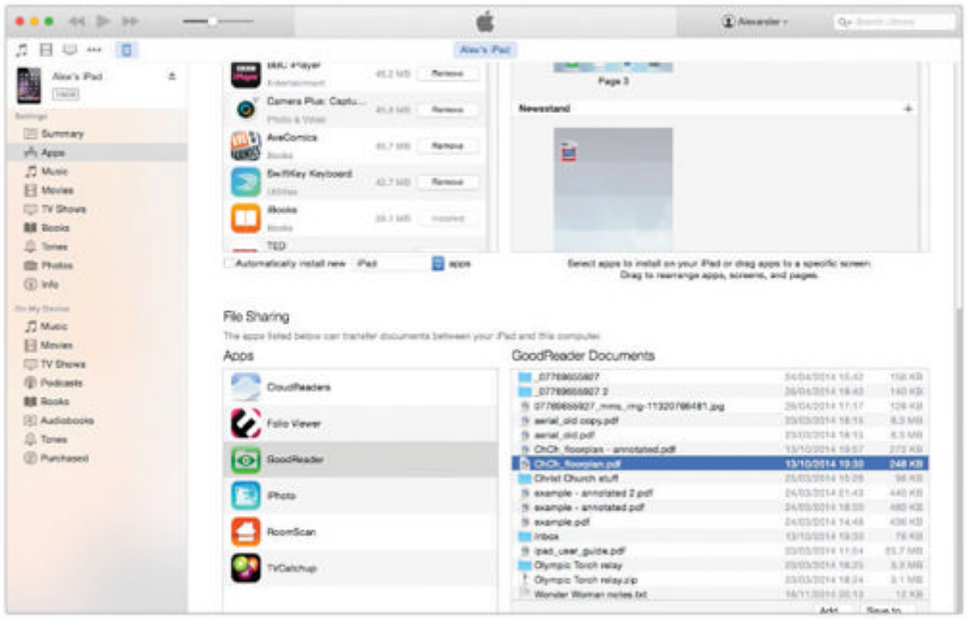
first time to set this up! Select the device from the button in the top left of the iTunes window, and in the Summary tab, under Options, tick 'Sync this [device] over Wi-Fi'. Click the eject symbol next to the device's name, and disconnect it when it has disappeared. It will reappear in iTunes whenever both the Mac and the device are on the same Wi-Fi network and switched on. You can drag-and-drop music, movies and books or sync automatically just as you can when it's connected over a cable. You can disable wireless syncing at any time if you decide to do things manually.

Transfer from your device

We've mentioned that you can buy songs and other kinds of content on your iOS device directly, and these don't always appear in your iTunes library. In fact you can transfer your iTunes Store purchases from your iOS device to any computer that's authorised to play them. So you first need to authorise the computer by opening iTunes, going to its Store menu and selecting Authorize Computer. (If you need to deauthorise a computer for any reason, you can do so from the same menu.) Next connect the device and click Transfer Purchases in the window that appears, or go to File > Devices > Transfer Purchases from [device name]. You can play iTunes Plus songs – that is, anything you've bought from the iTunes Store since 2009 – on any number of computers, and older songs on up to five authorised computers.

Restore deleted songs

We've looked at the difference between removing items from your iTunes library and permanently deleting them from your hard drive (see box on page 89). If you change your mind about getting rid



File Sharing with iOS apps

Connect your IOS device, click the device icon that appears among the icons at the top-left of the iTunes window, and (if you have more than one device) select the device you want. Click Apps under Settings at the top of the sidebar. Here you can remove or add apps as well as organise your apps, Home Screens and folders. Scroll down and you'll see a File Sharing section. In the left-hand panel is a list of the apps on your iOS device that can transfer documents between the device and the computer. Click one to see the documents it has saved on the device. Click one of these, then click the 'Save to' button at the bottom (you might need to scroll down a little bit further to see this) and you can copy the document to a selected location on your computer. Alternatively, click Add to choose files to copy to your iOS device (but if you want to use them there, bear in mind that they'll need to be in a format your iOS apps can deal with).



View previous purchases, no matter which device they were bought on, and you can redownload them to any authorised computer.

of an item, your options depend on what you've actually done with it. If you've removed it from your iTunes library but not trashed the file, it will still be on your hard drive. If you've enabled the option to copy files to the iTunes Media folder when adding to your library (in iTunes > Preferences > Advanced), then by default the file will be in [your user folder] > Music > iTunes > iTunes Media > Music in a folder named after the artist or the album it came from. Dragging it onto the iTunes icon, or simply double-clicking it, will be enough to add it back to iTunes.

If you've deleted the file itself, it's possible that the song is still on your iOS device, especially if you haven't synced recently. If so, connect the device and try transferring the song as described above. If it's no longer on the device but was originally purchased from the iTunes Store, then you can redownload it at any time by opening the iTunes Store app and tapping More > Purchased, then Music, Films or whatever it may be, and then optionally Not on This iPhone/iPad. Tap the song or other item in question, then tap the cloud symbol next to it to download it again.

To do the same in iTunes on your computer, click the iTunes Store link in the middle of the top bar, then click Purchased among the Quick Links on the right-hand side, then optionally select Not in My Library. Click the cloud symbol next to a track name (or in the top-right corner of an album cover in the case of an album) to redownload it, or click Download All at the bottom-right.

iTunes quirks and queries

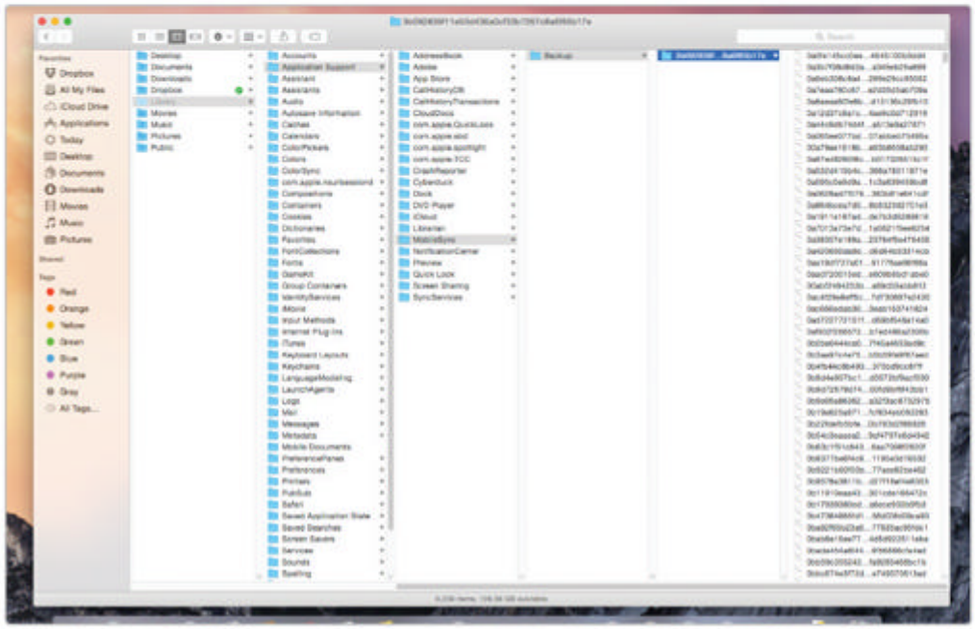
A grab-bag of enquiries about oddities in iTunes

iTunes bloat?

Q I've purchased a MacBook Air to complement my Mac mini. The mini is my main machine, housing my complete music library. Home Sharing and iTunes Match are enabled on it and the MacBook. Why is iTunes taking up 10GB of storage on my MacBook? As I'm sharing my library from the mini to the MacBook, surely this shouldn't be the case? What can I can do to clear this 10GB?

A It sounds like the space may be taken up by device backups, which won't have moved with your media library. iTunes backs up certain iOS data such as app files, settings and photos each time you sync an iOS device (if that device is set to back up locally, rather than to iCloud). These backups are in /Users/<your_username>/Library/Application Support/MobileSync/Backup/.

Open a Finder window, click Go on the menu bar and then hold ⌥ so that Library appears in the menu. Select this and then dig deeper from that point in the path listed above to reach the Backup folder. Select it and choose File > Get Info to see how much space the backups use. Individual backups can be deleted from the folder, or under Devices in iTunes' preferences.



iTunes taking up a huge amount of space? It could be old backups you no longer need, especially if you're backing up to iCloud.

Radio nada

Q Whatever's happened to the Internet Radio channels in iTunes 12? My wife and I used to listen to Radio 4 Extra (comedy, drama and entertainment) almost every morning via in the Internet Radio feature's Comedy category. Since installing iTunes 12, Radio 4 Extra has disappeared and doesn't appear in any of the other channels. The Comedy category now includes Radio 4, which used to be in its proper place in the News category.

A Internet Radio is a somewhat neglected area of iTunes these days. A quick search with Google revealed to us that BBC stations disappearing from or being recategorised within the list of stations has happened in the past, long before iTunes 12 was released. On our copy of iTunes 12, both Radio 4 stations appear under Comedy. To make matters more frustrating, you can't use iTunes' search bar to quickly filter the list of available stations to those whose descriptions mention your keywords. Though stations broadcast continuously, they can, counterintuitively, be added to a playlist to keep your favourites in one place. That makes them easier to find, and you can use the search bar to filter the playlist.

Whispering iTunes

Q I have some MP3 tracks that are nice and loud when previewed with Quick Look, but are much quieter in iTunes. Why?

A The most likely explanation is that Sound Check is turned on in iTunes > Preferences > Playback. This feature tries to normalise the loudness of songs by calculating the average loudness of an individual track and then adding an adjustment factor to that track's ID3 tags. This boosts the volume of a few very quiet tracks, but most tracks end up slightly quieter in order to compensate – about 10% is the figure we've seen quoted.

Sometime in the last couple of versions, Apple quietly tweaked Sound Check so that it preserves the intrinsic loudness of a track when you're listening in album mode. This allows artists to have intentionally quiet tracks without iTunes dragging them up. If you listen in shuffle mode, though, those quiet tracks will sound much louder, because Sound Check is boosting them.

The key thing to realise is that Sound Check doesn't change the audio data in a file – it just adds an extra field in the ID3 metadata of a file. When you listen to MP3s through Quick Look, you're using the QuickTime audio engine, which ignores this metadata and plays the track at the original gain level. The solution is simply to turn off Sound Check in iTunes.

Manually set a track's volume level by right-clicking it and choosing Get Info > Options.




Safari File Edit View History Bookmarks Window Help
iCloud Keynote
Share Presentation
Classic sports cars
or
modest family
runabouts?
MacBook Air

iCloud

Get to know the ins and outs of Apple's online service

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100 **Get more from iTunes Match**
Make the most of the music-matching service

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The basics of iCloud

Keep all sorts of data in sync between your Mac, PC and iOS devices

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
A Mac running OS X Yosemite, an iOS 8 device, or a PC

Do you use an iPhone in addition to your iPad? Are you also using a Mac or a Windows PC? In any of these cases, or even if you're using just an iPad on its own, you can make use of iCloud, Apple's free cloud-based sync, backup and file storage service.

To put it simply, iCloud enables you to sync your music and movies – plus your photos, contacts, calendars and various kinds of data – wirelessly to the cloud. This means they're all stored on Apple's online servers and are then available on any compatible devices.

How does it work? First, you need to be using the latest versions of iOS and OS X (and there's also a handy Windows desktop tool and iCloud control panel if you use a PC instead of a Mac – see page 142). To sign up for the service, you'll need an Apple ID.

Then you simply enable iCloud and choose which types of files and data you want to sync: contacts, calendars, reminders, notes, bookmarks, mail account settings (your email messages too, if you opt to set up an iCloud Mail account) and more. Now instead of backing up to your Mac or PC via iTunes, your device will sync with iCloud over Wi-Fi, even if you plug it manually into your computer using a cable.

Photos, calendars, songs, messages, contacts, ebooks and much more can be synced to all your devices, wirelessly and seamlessly.



Getting into sync

Part of the service is iTunes in the Cloud, which enables you to wirelessly download all your purchased iTunes music and movies to any or all of your devices. The same goes for App Store and iBooks Store purchases.

On Macs running OS X Yosemite and iOS devices with iOS 8.3 or later, iCloud Photo Library automatically uploads photos added to any of your devices to iCloud, making them viewable and editable on all of your other devices, too.

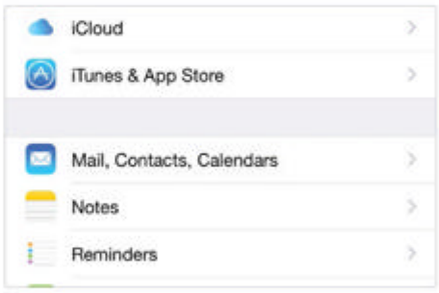
Older operating systems can use Photo Stream, which stores your 1,000 most recent shots on each device, and gives you 30 days to copy a photo to an album if you want to keep it permanently on any device in addition to the one it was taken on – the original remains there until you delete it yourself.

You can also sync your web browser bookmarks, and adding items to your Reading List on one device means they'll then appear in the same list in Safari on all your other devices linked to the same iCloud account. You can also see what tabs you've left open in Safari on your other devices, and open them on the one you're using with a tap or click.

iCloud can even sync playback: if you start to play a movie, TV show, podcast or audiobook on one device and then pick up another, it will resume playing from the point where you left off on the first device. This works for content bought or rented from Apple, and also for your own movies stored locally.

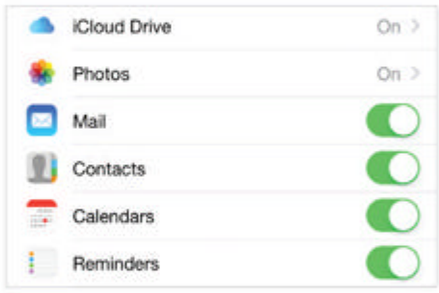
Finally, there's iCloud Drive (formerly Documents in the Cloud). You get 5GB of space for free, which is used for backing up your documents and data (but your music, apps or other purchases don't count towards the quota). You can pay for more storage, from 20GB to 1TB, and choose to pay monthly or annually.

HOW TO | SET UP iCLOUD ON YOUR iOS DEVICES



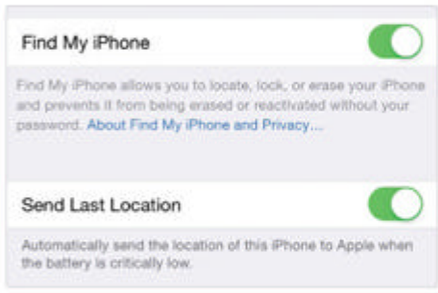
1 Enable iCloud

On your iOS device's Home screen, tap the Settings app. Scroll down the first page to find iCloud (it's in the fourth group down). Tap it and enter your Apple ID and password in the boxes at the top of the screen, then tap Sign In. If you don't have an Apple ID yet, see page 16.



2 Choose services

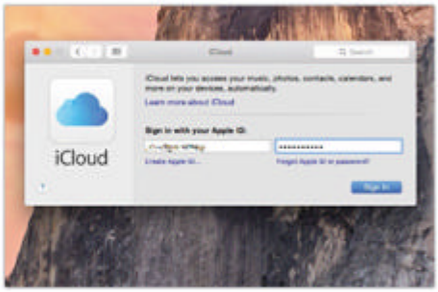
You'll be asked whether to enable the useful Find My iPhone service. Next, you'll see a list of services; ensure those you want to use are turned on. Scroll down and tap Share My Location to set whether your device's location is shareable in Messages and Find My Friends.



3 Send Last Location

Return to the top level of iCloud's settings and tap Find My iPhone. Even if you chose to turn it on earlier, you might want to enable an extra setting, Send Last Location, which forces your device to send its location when its battery is very low, provided it's online.

HOW TO | SET UP iCLOUD ON YOUR MAC



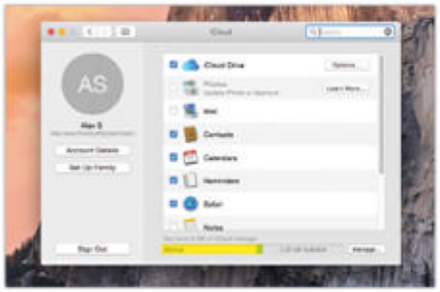
1 Enable iCloud

Click > System Preferences > iCloud and sign into your account (see page 16 if you have yet to create one). Enter your Apple ID and password, then click Sign In. For now, we'll enable both data backup and Find My Mac; we'll tweak what's backed up in a moment.



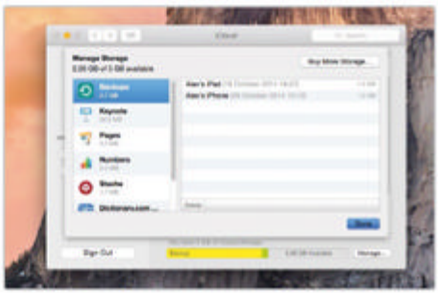
2 Location Services

Naturally, it's essential to grant the Find My Mac service access to your location for it to do its job. If you're happy with this, click Allow. You might be asked to OK various other options, after which you'll see a list of the different bits of data that iCloud can sync with your Mac.



3 Configure backups

Tick or untick the boxes to set what is synced with iCloud; some offer further options. If there's an alert symbol next to Find My Mac, click the adjacent button. Resolving it might be as simple as enabling 'Wake for network access' in System Preferences > Energy Saver.



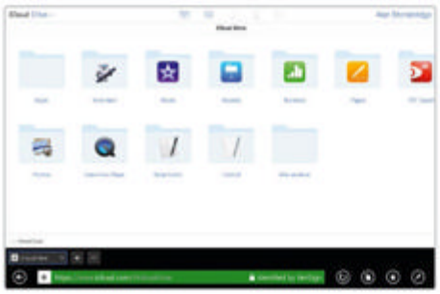
4 Buy more storage

You get 5GB on iCloud for free. But as you add things (on all your devices), the capacity bar at the bottom fills up. Click Manage to cull your backups of large apps or other devices, or click Buy More Storage if need be. An additional 20GB (making 25GB in total) is just 79p a month.



5 Access over the web

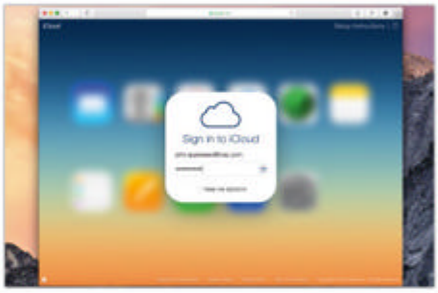
If you're away from your Mac and need to access something stored in iCloud, you can do so from any computer or device connected to the internet: go to icloud.com and sign in. This provides access to your iCloud email, contacts, calendars, notes, reminders and more.



6 Get your documents

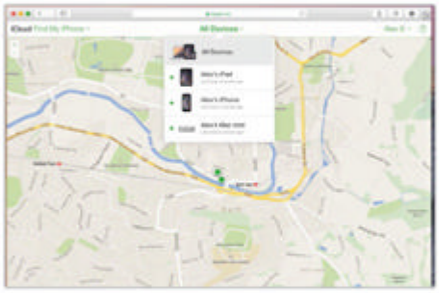
If you enabled iCloud Drive, you can click its icon here to download your files, edit them locally in whatever software is available, then upload them again. You can even use web app versions of Pages, Numbers and Keynote in your web browser – see page 130 for details.

HOW TO | FIND A LOST MAC OR iOS DEVICE



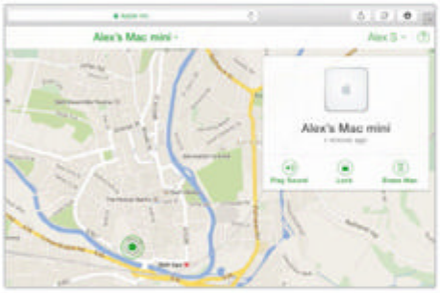
1 Sign in to iCloud.com

If you've set up Find My iPhone/iPad/Mac and your device is connected to the internet, you can find where it is worldwide. On an iPhone, iPad or iPod touch, install the Find My iPhone app. On a Mac or PC, use a web browser to go to icloud.com/#find and click Sign In.



2 Locate your device

Enter your Apple ID and password and hit ↵. A map will load with all your registered devices shown as pins. To locate one, click All Devices at the top and choose its name from the list. If it can't be found, you'll see when and where it was last time it was able to get online.



3 Remote control

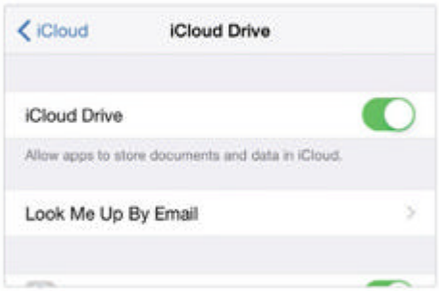
If you've misplaced your device or fear it's fallen into the wrong hands, click its name to see your options: you can make it play a sound to help you locate it, make a message appear on its screen (so whoever finds it can contact you), remotely lock it or even wipe all the data on it.

HOW TO | MASTER YOUR iCLOUD BACKUP SETTINGS ON iOS DEVICES



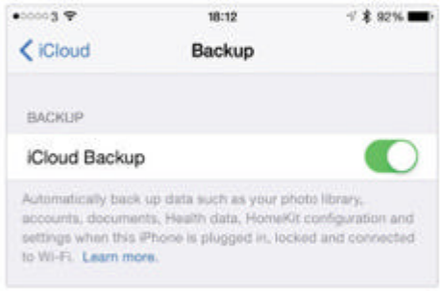
1 iCloud settings

On your iOS device's Home screen, tap Settings and scroll down to iCloud. Tap it, then decide which iCloud services you want to switch on. Choosing Mail won't sync all the email accounts you may access via the Mail app, only your free @icloud.com account.



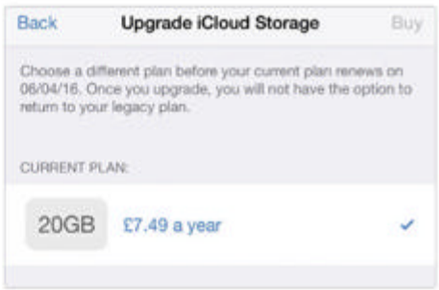
2 iCloud Drive

Tap iCloud Drive to choose which of your apps can use iCloud to store documents you create and other data, such as saved games. Scroll to the bottom of the list of apps to find a switch that determines whether iCloud Drive uses a mobile network or to restrict it to Wi-Fi.



3 iOS device backups

To enable iCloud Backup, tap Backup and then turn on its switch. Your iOS device will no longer sync and back up automatically to iTunes. Instead, it will back up to iCloud when plugged in, locked and connected to Wi-Fi. You can also tap Back Up Now to back up manually.



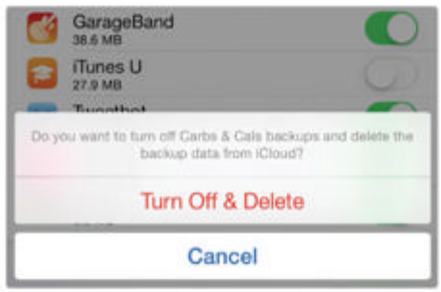
4 Buy More Storage?

Tap iCloud > Storage > Change Storage Plan. You get 5GB for free; if you need more, you can tap to select a new tariff (pay monthly) under 'Choose Upgrade'. An extra 20GB (giving you a total of 25GB, including your initial free 5GB) is just 79p per month.



5 Or optimise first

But do you really need more? Go back a level and tap Manage Storage to see how much space is used by your iOS device backups, as well as a list of how much space is being used by your Mac and iOS apps. Tap the name of the device you're using to see what it's backing up.



6 Specify backups

To save space and stop backing up items you don't really need, you can turn each app's backup on or off. Tap Show All Apps to see those that use less space. Turn off the switch for an app to delete its backups from iCloud and to stop it backing up from this device in future.



7 Other devices

You can't view this level of detail for devices other than the one you're using, but you can see when they were last backed up and how big their backup is. You can also delete any device's backup, but think carefully before you do this, especially in the case of other devices!



8 iCloud Photo Library

If your photo library is taking up too much space and you don't want to pay for more storage, on each of your devices tap iCloud Photo Library in the Manage Storage page and then Disable and Delete. You have 30 days to download the photos before they are deleted.

SAFARI TAB SYNCING



If you use Safari on iOS and Mac, you can sync any open browser tabs across all your devices and computers, as long as each is connected to the internet and signed into your iCloud account. Tap the Tabs icon (two overlapping squares) to reach this list (scroll down to find it on an iPhone).

Future

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Discover iTunes Match

Make your music, including ripped tracks, available on any device

SKILL LEVEL
Anyone can do it

IT WILL TAKE
Ages to sync your Library

YOU'LL NEED
Subscription to iTunes Match

Your purchases from the iTunes Store – whether music or video –are available to download on all of your devices and computers linked to the same Apple ID, no matter which device you used to purchase them. If you bought a track on your iPad, say, and haven't set music to download automatically to all your devices, then you can add the track to your iPhone at no extra cost: on your iPhone, open the iTunes Store app, tap More > Purchased > Music to browse your past purchases. Tap one's name to play it, or tap the cloud with a downwards-pointing arrow next to it to download it to your iPhone so you can be sure it's available even when an internet connection is unavailable. Apple calls this iTunes in the Cloud.

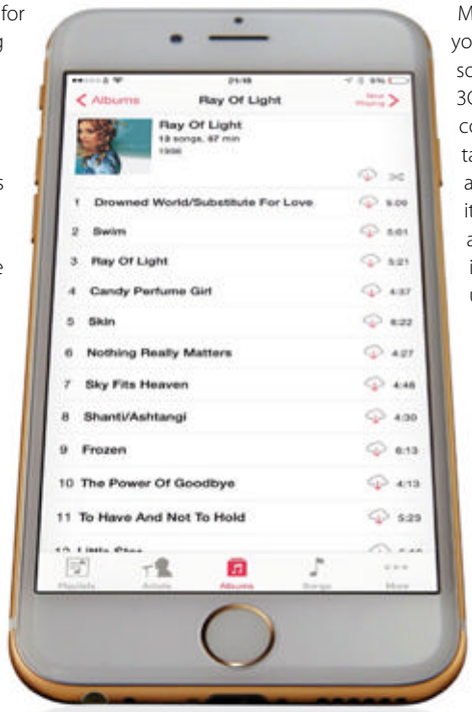
The iTunes Match service goes further. For £21.99/$24.99 a year, it makes *all* your music available for download on all your devices, including tracks ripped from CDs or purchased from other stores.

Mix and match

When you sign up to and enable iTunes Match, it scans your computer's iTunes Library to check whether your ripped tracks match with tracks available in the iTunes Store. If so, it adds the store's version to your iTunes in the Cloud track list, so it becomes available to all your devices – in 256kbps, DRM-free AAC format, even if your original is of lower quality. With tens of millions of songs in the iTunes Store, the chances of finding a match are quite good, but if it's not found, your original track will be uploaded (subject to a few conditions) so it's also available to download to all your devices..

You can subscribe to iTunes Match directly from your iOS device, but it makes more sense to do it from your computer since that's most likely to contain all of the music you'll want to match or have iTunes upload to the cloud.

You might find that some tracks aren't matched or uploaded, but you have no indication why. It could be as simple as a broken link to the original file in your computer's iTunes library, or it might be down to one of the criteria that Apple imposes for the service (see https://support.apple.com/en-gb/HT204406). If there's more than one version of a particular song – for example, because it appeared on several albums or there's a live version of it in addition to a studio recording – iTunes Match sometimes matches the wrong version. Some users also report songs with explicit or 'adult' lyrics being replaced by the censored radio version, album artwork disappearing or play counts being reset.



Tap to play a track in the cloud, and it'll start streaming or downloading.

More important are the pitfalls on your mobile device. You can stream songs to your device over Wi-Fi or 3G, but if you have a poor-quality connection you might find tracks take a while to start. Also, if you play a song using iTunes Match and let it run on to the next song on the album, it will keep streaming songs in sequence, potentially chewing up your data allowance. To help prevent this, you can tap Settings > Mobile (sometimes Cellular) and, under Use Mobile Data For, turn off the switch next to Music.

Enabling iTunes Match means you can no longer manage the music on your iOS device manually, so it's probably not for control freaks.

For all those reservations, though, iTunes Match can be a godsend, especially if you have a library stuffed with poor-quality music rips!

How to tailor iTunes Match

1 Keep your library up to date
If you rip tracks from CD to your computer or add tracks from online stores other than iTunes, ensure your iCloud library is up to date: go to Store > Update iTunes Match.

2 Stop subscription renewal
By default, an iTunes Match subscription will renew automatically each year. To stop this, open iTunes on a Mac or PC and make sure you're signed in – if not, go to Store > Sign In. Choose Store > View Account, then click Turn Off Auto-Renew next to iTunes Match.

3 Temporarily hide online tracks
Out and about with no internet connection? Hide music that isn't available. Tap Settings > Music and switch off Show All Music. Now in the Music app you'll see only tracks that are on your device, not those in the cloud.

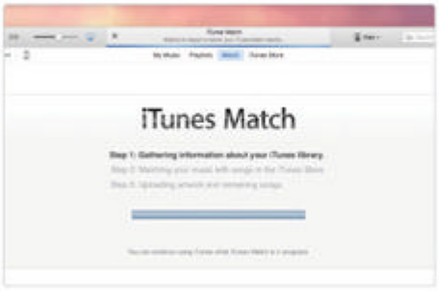
4 Free up space on your device
You can remove downloaded tracks manually. Swipe your finger leftwards across one and tap Delete; this removes the locally stored version of the track, not the version in the cloud. To get rid of all tracks, go to Settings > General > Usage > Manage Storage (under Storage) > Music. Tap Edit, the red minus icon next to All Songs and then the Delete button that appears.

HOW TO | GET iTUNES MATCH WORKING ON YOUR iPHONE



1 Subscribe

In iTunes on your Mac or PC, go to Store > Turn On iTunes Match. You'll see an overview of the service's features. Below that, click the Subscribe button and confirm your iTunes Store account details; note that a credit or debit card must already be added to your account.



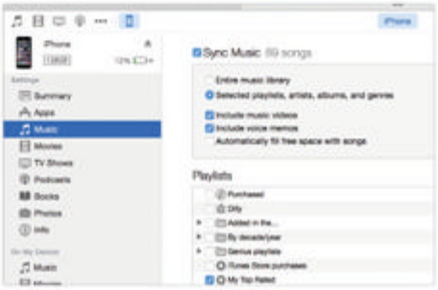
2 Match your music

iTunes Match runs through three steps to put your music online, which can take a while. It gathers checks your tracks, tries to match those from sources other than the iTunes Store against items in the store, and makes those items available even if your copy was of lower quality.



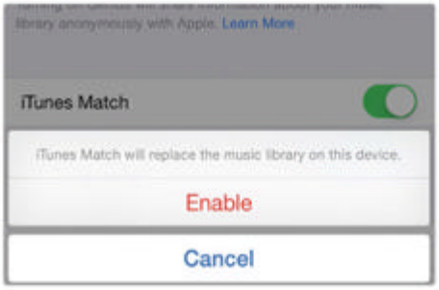
3 Unmatched tracks

If it can't match the songs, it uploads the versions from your iTunes library. How long this takes depends on track sizes and the connection upload speed. If you quit and reopen iTunes, it checks whether these tracks are available from the store, and if not, resumes the upload.



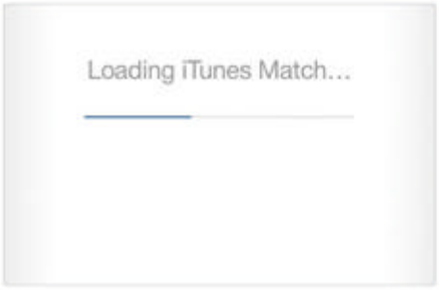
4 Prepare your phone

Enabling iTunes Match on an iOS device will stop it syncing music with your computer. iTunes warns that the device's music library will be overwritten, but if you sync now you won't have to waste time repeating the process of downloading tracks already on your device.



5 Turn on iTunes Match

On your iPhone, tap Settings > Music. iTunes Match can take a few seconds to appear in the options. When it does, switch it on, then enter the account details you used to subscribe in step 1. Again, you'll be warned that you're about to replace your entire music library.



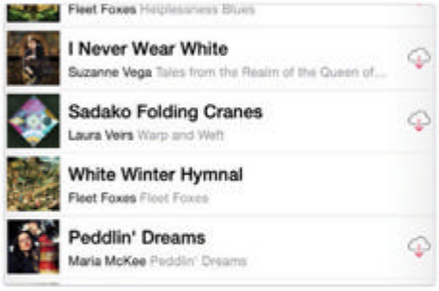
6 Library sync

The Music app shows a progress bar while it downloads details of your iTunes in the Cloud music; you can still use your device for other things. When the process is complete (it can take a while), you'll see a cloud symbol next to any track that hasn't been downloaded.



7 Play from the cloud

Tap the cloud symbol next to a track name to make it available offline, or tap the track's name to make it available until your device needs the space. Beware of your tariff's data cap because playback advances through the track list even if you're using mobile data.



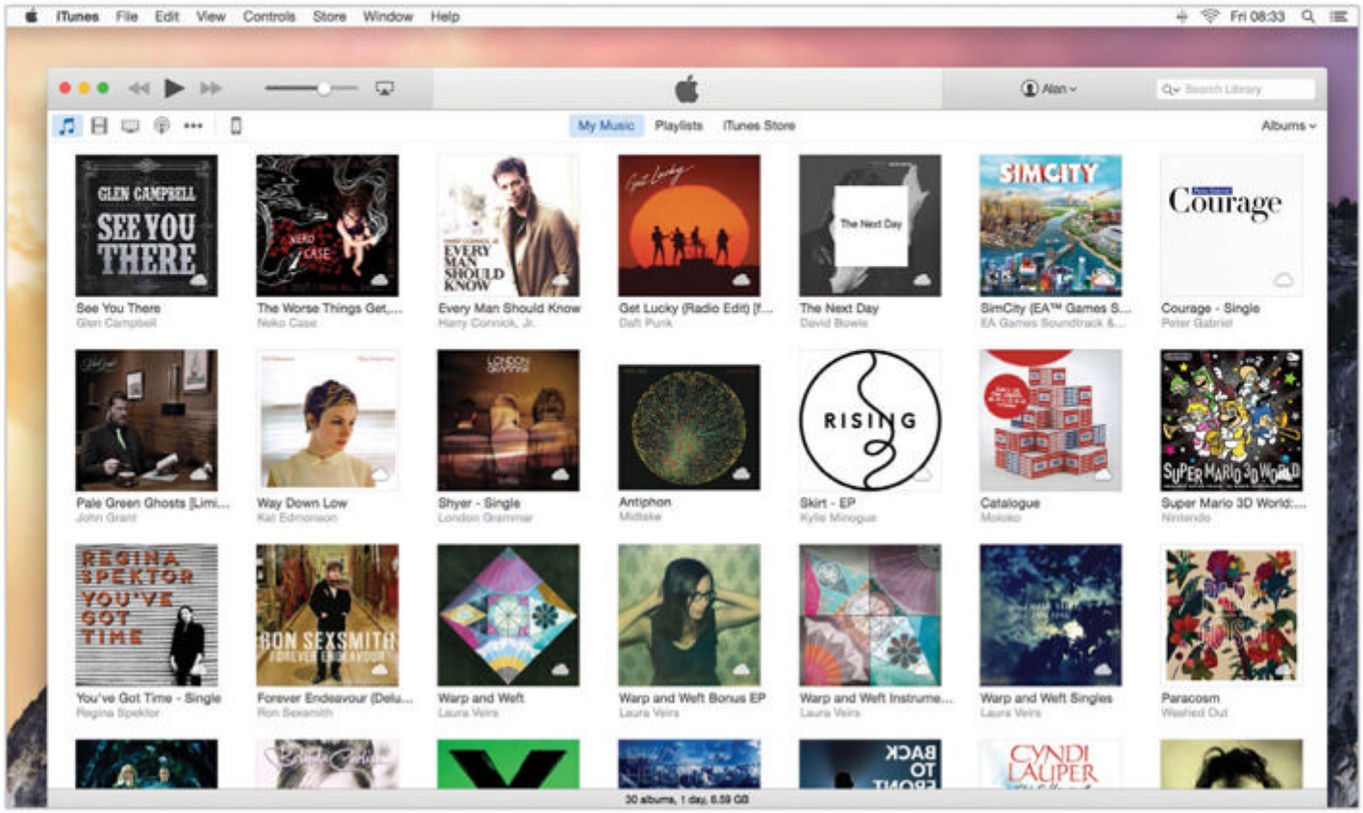
8 Skip unwanted tracks

Create playlists to avoid downloading unwanted tracks and wasting your mobile data allowance. Tap Playlists > New Playlist and set things up to include only those tracks you really want. Tap Done, swipe to the top of the list, and tap the cloud icon next to Download All.



9 Download albums

You'll also find a download (all) icon in the summary of each album, and by swiping past what looks like the top of an artist's entry in your library. Tap More at the bottom of the screen and you'll find one is available for each composer and compilation too, but not genres.



Get more from iTunes Match

How to make the most of Apple's music-matching service

SKILL LEVEL
Taking things further

IT WILL TAKE
1 hour or more

YOU'LL NEED
An iTunes Match subscription

When Apple first introduced the iTunes Match service, there were a few quibbles and complaints. Some early adopters found that it didn't match all their songs, with no apparent reason why some tracks were missed, which was particularly annoying if it had happily matched the other 11 tracks on the same album.

Some users found that tracks with explicit or adult-rated lyrics were replaced by the cleaned-up 'broadcast' version, or discovered that their ratings or play counts had been reset.

On the whole, though, the service proved effective and has only improved over time. The icing on the cake has to be the ability to use iTunes Match to improve the quality of your library, replacing your rubbish rips with iTunes Store-quality 256kbps AAC files.

It's not really what iTunes Match was designed for, but it's not hard to do. Provided you've ripped tracks at 128kbps or higher and iTunes Match recognises them, you can replace your existing copies with high-quality AAC files at 256kbps.

It takes a little time and thought, but if you've got a library of thousands of songs, it's certainly much easier than the alternative of re-ripping dozens of CDs, assuming you can even find them again.

Upgrade options

There are a couple of conditions. You can upgrade only music, not other kinds of audio content, and you're limited to 25,000 songs (but that's on top of your iTunes Store purchases – they don't count towards this total).

There isn't a one-button 'Upgrade my music' option, but the upgrade process is still simple enough – see the opposite page for a step-by-step guide, plus advice on how to persuade iTunes Match to recognise and then upgrade very low quality tracks that it normally wouldn't accept as eligible.

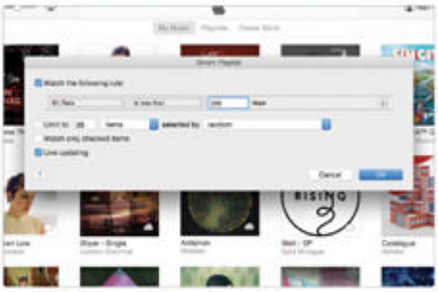
If you have a large 'back catalogue' of old rips, it can be worth signing up to iTunes Match for just a year in order to upgrade your library and then cancelling your subscription. (When you sign up, your subscription is set up by default to auto-renew, so if you do want to cancel you'll need to make a point of doing so – see page 102.)

Bear in mind, though, that if you do cancel, your iTunes Match library in the cloud will disappear. This doesn't mean the tracks you've updated will revert to rubbish bit rates again – once you've downloaded them, they're yours to keep – but if there's anything stored in iTunes Match that you haven't downloaded, it'll be gone.

So make sure you follow our guide right to the final step and download your upgraded tracks.

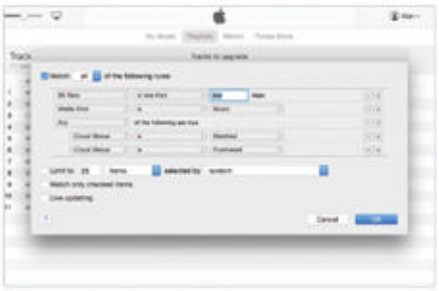
Of course, you don't have to cancel your subscription – with all the features on offer, iTunes Match could amply justify its cost for years to come!

HOW TO | UPGRADE LOW-QUALITY MUSIC TO iTUNES PLUS QUALITY



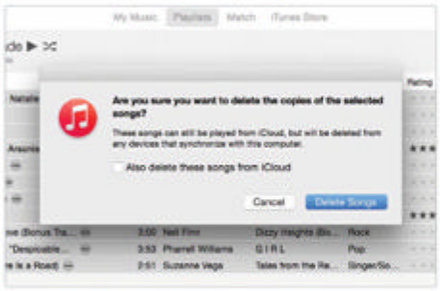
1 Create Smart Playlist

You first need to sign up for iTunes Match and let it scan and upload your library (a process that takes hours). When done, go to File > New > Smart Playlist… or press ⌘+⌥+N. In the new window, make the first criterion 'Bit Rate is less than 256kbps'. Click the + sign to its right.



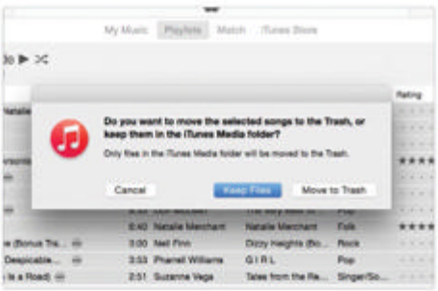
2 Low bit-rate songs

This adds another criterion. Set this one to 'Media Kind is Music'. Now ⌥-click the + next to this, select 'Any of the following are true' and add a new criterion, 'iCloud Status is Matched'. Finally, click the + once more and add 'iCloud Status is Purchased'. Untick all options below.



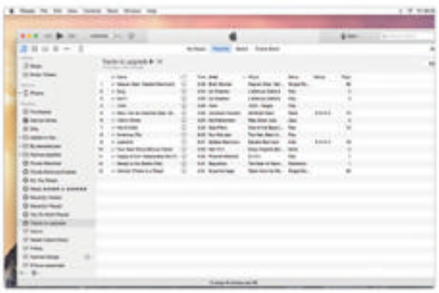
3 Delete from your library

Click OK to save your new playlist and iTunes will show its contents. Now for the scary bit. Press ⌘+A to select all files, then press ⌥+⌫. iTunes will ask whether you're sure you want to delete all the songs from your computer's iTunes library.



4 Keep iCloud version

It asks this because deleting songs from a playlist normally doesn't delete them from your iTunes library, unless you hold ⌥. Ensure 'Also delete these songs from iCloud' is *not* ticked, then click Delete Songs. If another warning appears, take a breath and click Move To Trash.



5 Download from iCloud

Oddly, the songs don't disappear. Instead, a cloud icon appears next to each one. The songs are not on your Mac, but are available in iCloud. The next step is to download them. We'll do this by creating another Smart Playlist to help keep track of what's yet to be downloaded.



6 Job done… eventually

Set the criteria to: 'Match all of the following rules', 'Location is iCloud', 'Location is not on this computer', and 'Media Kind is Music'. OK this, open the playlist, select all, right-click on a track and select Download. Note that downloading many songs is an overnight job.

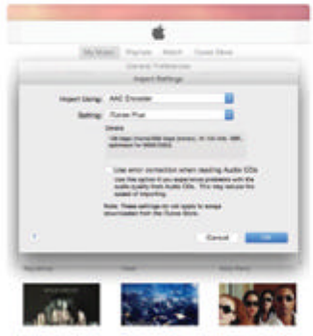
Fool the filters if your tracks aren't good enough

Unfortunately, iTunes Match won't so much as look at music with really low bit rates, which can include tracks ripped using a variable bit rate setting. So, what do you do if iTunes says a track is 'ineligible' for matching and you'd rather not spend all day rooting through your collection trying to find the original CD to re-rip the track? The answer is simple: cheat!

First of all you need to find the files. To do this, create a Smart Playlist where the iCloud Status is 'Ineligible' and Media Kind is 'Music'. Select the playlist to see the offending tracks. Select all, right-click and choose Create AAC Version to convert them to iTunes-Match-eligible AACs.

(If you see Create MP3 instead of AAC, go to iTunes > Preferences. In General, click on Import Settings, and in the Import Using pop-up select 'AAC Encoder'; for Setting, select 'iTunes Plus'.)

The new files won't sound any better, but that's not the aim of the process: what you're trying to do is fool iTunes into thinking they're good enough to match. Delete the originals, make a playlist of the new ones and set iTunes Match to work on them (Store > Update iTunes Match). Then, once it's matched the tracks, delete your local copies and download the matched ones. It's a bit of a pain, but easier than banging around in the loft trying to find a CD you haven't seen in several years.



Has iTunes Match ignored your low-quality MP3s? If so, turn them into AACs and you can cunningly fool the filters.

What is the cloud?

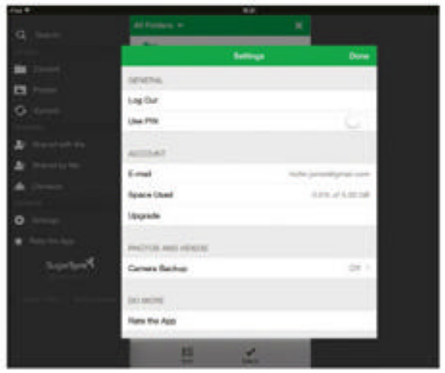
You hear a lot about 'the cloud', but how does it actually work?

The term 'cloud' implies something that's above your head, but in reality the data that you upload is likely to be stored very much at ground level or even underground, and probably thousands of miles away from your location. A cloud service is actually a cluster of computers – more accurately, a huge number of servers with vast amounts of storage attached. It's a natural evolution of the technology behind the internet itself and has come about largely thanks to rapid improvements in global bandwidth and the plummeting price of storage capacity.

The internet is actually just a collection of data centres – albeit many thousands – all connected through various global hubs and thousands of miles of heavy-duty undersea cabling. As the web grew and companies like Microsoft, Apple, Google and Amazon came to use it more and more for services, sales and software delivery, it became necessary to build large server farms and data centres to cope with the sheer volume of visitors and information they had to store and serve to users. Companies like Akamai grew correspondingly, providing heavyweight video streaming and content delivery for other big tech companies. Bandwidth isn't free, and big telecoms firms around the world own the physical infrastructure and charge your ISP for it.

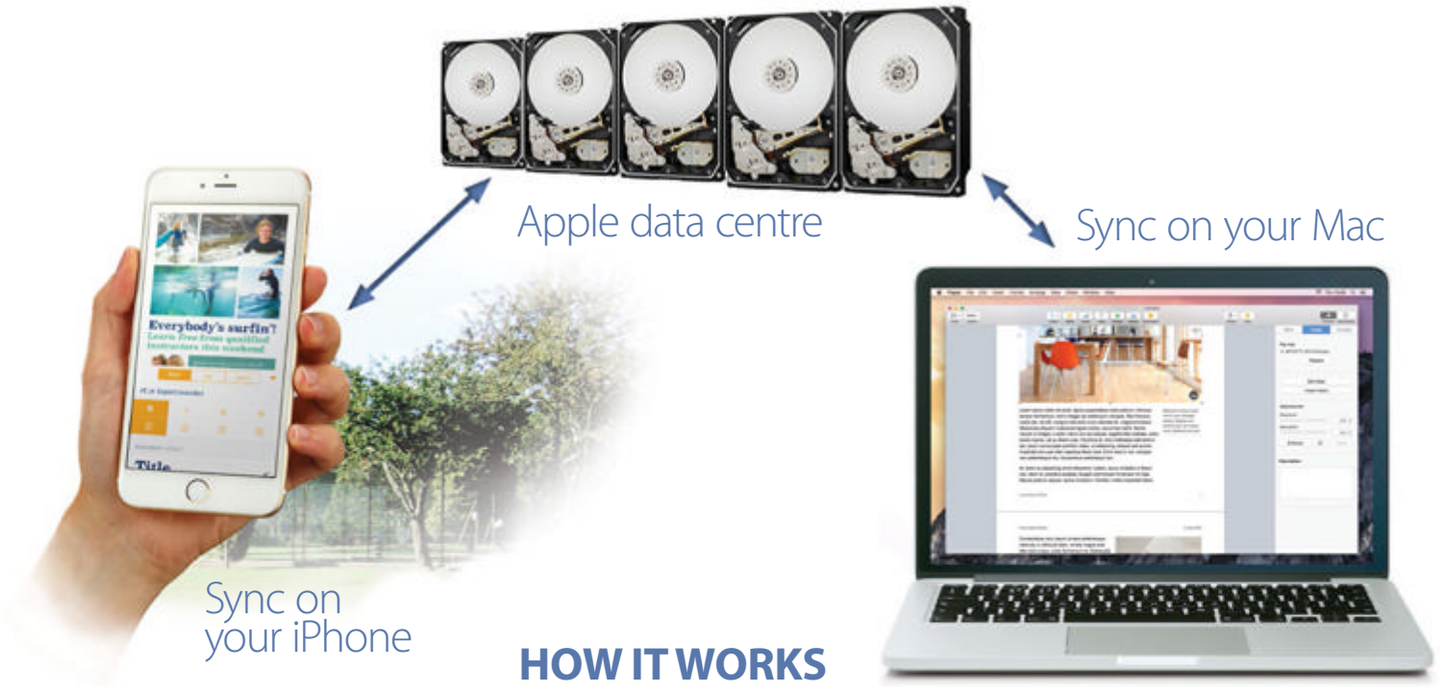
The idea that ordinary users could use cloud storage began to take off as home broadband started to become widely available. Companies would offer online file storage, but for a long time capacities were low and prices high. Apple's own early forays into the world of cloud storage were not entirely blemish-free, with iTools and later .Mac and MobileMe failing to live up to the company's reputation for ease of use. With iCloud, that early vision has become much more of a reality.

At the same time, many other developers (Dropbox, Microsoft, Google, Amazon and Box, to name just a few) built their own cloud syncing and sharing services that usually work across Macs, PCs, iOS devices and often Android. Though Apple and Microsoft have an interest in making their cloud services integrate specifically with their own operating systems and hardware, third-party developers want to be on all the big platforms, which is great news for users because it means you can often access stuff from your different devices.



You can easily check the current state of your cloud storage by viewing the settings section in its respective iOS app.

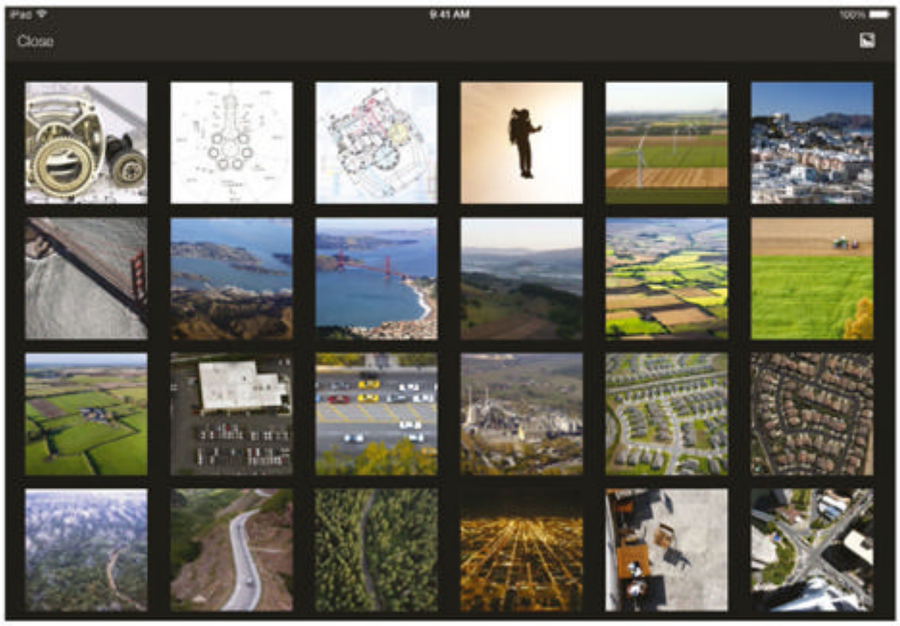
When you upload or sync a file or a folder to



HOW IT WORKS

iCloud Drive works by connecting your Mac, iOS device or even your PC across a wired, Wi-Fi or cellular internet connection to Apple's data centres, all the while using your Apple ID for authentication.

Devices running the latest versions of OS X or Windows 7 or above can access iCloud Drive, a virtual drive onto which you can drag and drop any kind of files or folders to store them. Mac apps such as TextEdit, Numbers, Pages and Keynote can save directly to iCloud Drive, though you're actually working on a local copy that's then automatically synced for you. iOS devices can also use iCloud for backup, and they and Macs can store settings, contacts, shared photos and your iCloud keychain, which, rather handily, allows you to store passwords so it's easy to log into websites.



You can store videos, photos or even just plain old text files in your cloud. Photos take up more storage space than text files.

the cloud, it is literally being copied digitally to your allocated space on a server somewhere on the planet. The fact it takes mere seconds to upload or download belies the vast distance that the data may be travelling. Cloud storage works like a connected hard drive, except that rather than plugging in over USB, it's remote and linked over the internet. The same applies to mobile devices too, and it's these that have helped to drive the growth of cloud services. Getting files from your computer to your phone or iPad can be a hassle, but with all your devices signed into the cloud you can use the virtual drive as a central storage location.

You can share things from the cloud, too. Need to send a 500MB movie file? Stick it in the cloud, password-protect it (if you like) and send out the link. Since it's remote, your data is fairly well protected – certainly from hardware failure or theft – and you can be sure that these companies have lots of backup tech in place.

Most cloud services now go beyond simple online file storage and offer file syncing too, which means uploading batches of data at once, and analysing which files have changed since the last sync. You can manage different versions of files and use 'watch folders' in many cases to have anything you store in a local folder automatically uploaded.

The advantages of cloud syncing are obvious, especially when it's baked into the operating system like in iOS 8 and OS X Yosemite. Even when it's an add-on service like Google Drive or Dropbox that you access through a browser or an app, the fiendishly complex technology that enables it all to work is hidden from the user. After a few false starts, cloud syncing technology is more approachable and powerful than it's ever been, even if you're not an expert on what's going on behind the scenes.

When you upload to the cloud, you entrust your data to someone else; and some pictures have been 'stolen' from online accounts. In truth this is believed not to have been a hack as much as a 'phishing' attack (guessing someone's password rather than defeating any digital locks). You should use complex passwords and Apple's two-factor authentication (https://support.apple.com/kb/PH14668) to greatly reduce any risks. There's also a potential issue if your connection has a usage cap; if you're on a mobile device it can be wise to limit data uploading over mobile so you don't burn through your data allowance.

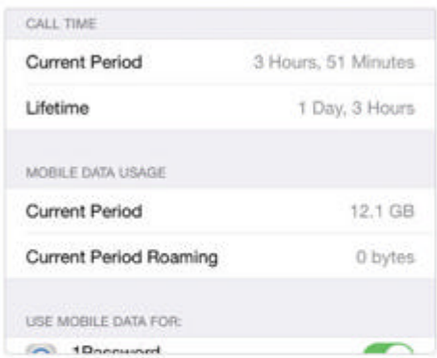
It can be hard to pick what service to use, and there's nothing stopping you mixing different ones, though iCloud is the best starting point for Apple devices thanks to its tight integration.

HOW TO | LIMIT USE OF MOBILE DATA AND iCLOUD STORAGE



1 Limit a specific app

After installing an app, you might want to restrict it to using Wi-Fi. Open Settings and scroll down to the bottom group, which lists installed third-party apps. Find your app, tap on its row and switch off Use Mobile Data. You might also switch off Background App Refresh to avoid battery drain when not using the app.



2 Monitor mobile usage

If you prefer to let your new app use mobile data for a while so you can monitor how demanding it is, go to Settings > Mobile and scroll down to find a list of installed apps. Below any app that has used mobile data you will see how much data it has transferred since the stats were last reset (scroll to the bottom to see that).



3 Save iCloud storage

By default, iOS apps that can store data in iCloud will do so, though some ask for your permission the first time you use them. You can prevent this over mobile and Wi-Fi. On iOS 8 by going to Settings > iCloud > iCloud Drive, and turning off the switch next to an individual app's name. This only disables it on the current device.

iCloud Drive

iCloud Drive is here, but what exactly is it?

Apple has tried to make a service like iCloud Drive in the past, but its previous attempts met with limited success. Those who have been with Apple for a while may remember iDisk, an early attempt at providing remote file storage, accessible using OS X's Finder, onto which you could drag and drop any kind of files to store them in the cloud. It was slow, using WebDAV as its transfer protocol, and offered only limited storage space. It's somewhat telling that Steve Jobs tried to buy Dropbox some years ago – presumably with the aim of incorporating its then-superior cloud storage technology into OS X – but Dropbox said no. Apple has got there in the end though, and, as you would expect, iCloud now does more than just store files. It has features like iOS device backup, locating your iPhone and storing passwords, though here we're really looking only at the Drive component.

Long overdue

In many ways, iCloud Drive is overdue. When iCloud was introduced, many people were disappointed that it didn't include a regular file repository that could be accessed in Finder. You could sync contacts, calendars and bookmarks through it, but you couldn't drop stuff onto it manually. But hooray! Now you can, and if you don't have fairly new devices that support Handoff, Apple's technology for moving a task directly from one device to another, iCloud Drive is your next best option. You'll need a Mac running OS X Yosemite or an iOS device running iOS 8 to work with it (though Windows and Linux users can manually upload through a browser).

WHAT IS IT?

iCloud Drive is Apple's online storage system, built into the latest versions of OS X and iOS, that enables you to store files remotely and access them from devices logged in with your Apple ID. It offers storage and pricing options up to 1TB.

What does it work with?

OS X Yosemite and iOS 8, but it's especially useful with Macs apps that can save files directly to it. This includes Apple's iWork suite (free on new devices) on Mac and iOS. Windows users can install the iCloud Control Panel to access Drive in a browser.

Signing into iCloud on your Mac (in System Preferences) lets you switch on the iCloud Drive option, after which it will become available as a shortcut both in the sidebar of any Finder window and when you're saving files in an app, and in Finder's Go menu. Select it, and your remote storage appears just as if it was a locally connected hard drive. You can then drag and drop anything from your Mac onto the drive and it will upload to the cloud. For small documents this will take mere seconds, but for bigger items it will depend on your connection speed. You also only get 5GB of space for free, and while this is fine for uploading some files, if you're backing up your iOS device too those backups may already be using most of that space. You can upgrade for a modest monthly fee to 20GB, 200GB, 500GB or 1TB of storage depending on your needs, and downgrade too should you change your mind.

Cutting out the middleman

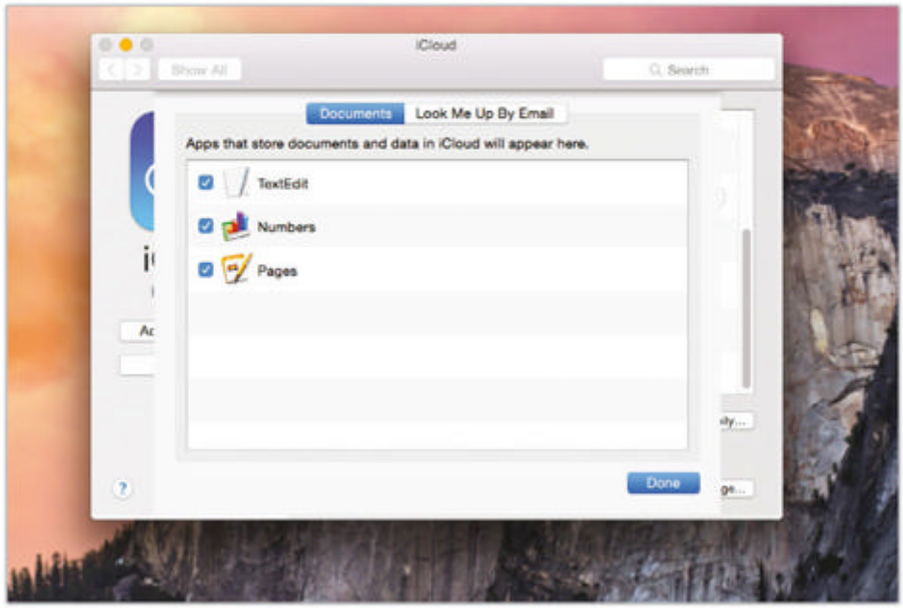
On a device running iOS 8 you can also use iCloud Drive, but there's no file explorer like you get on a computer: instead you have to use an app that's been written to be able to read and save files directly into iCloud Drive. This includes Apple's iWork suite of course, and Apple has made it easy for app developers to incorporate this functionality, so expect to see it coming to more apps soon. The reason this updating is necessary is because iCloud Drive lets you open documents in different apps, so they must be designed appropriately. Until now, if you wanted to take a picture in one app and then work on it in another, you'd have to export it to your Camera Roll (the same with other document types – save out and re-import). As long as both of the apps you want to work with have been updated to work with iCloud Drive, you can save it there from the first app and then open it from any other Drive-compatible app.

Some apps aren't suited to cloud storage – mainly those that deal with large files like video or uncompressed audio – but many are because they

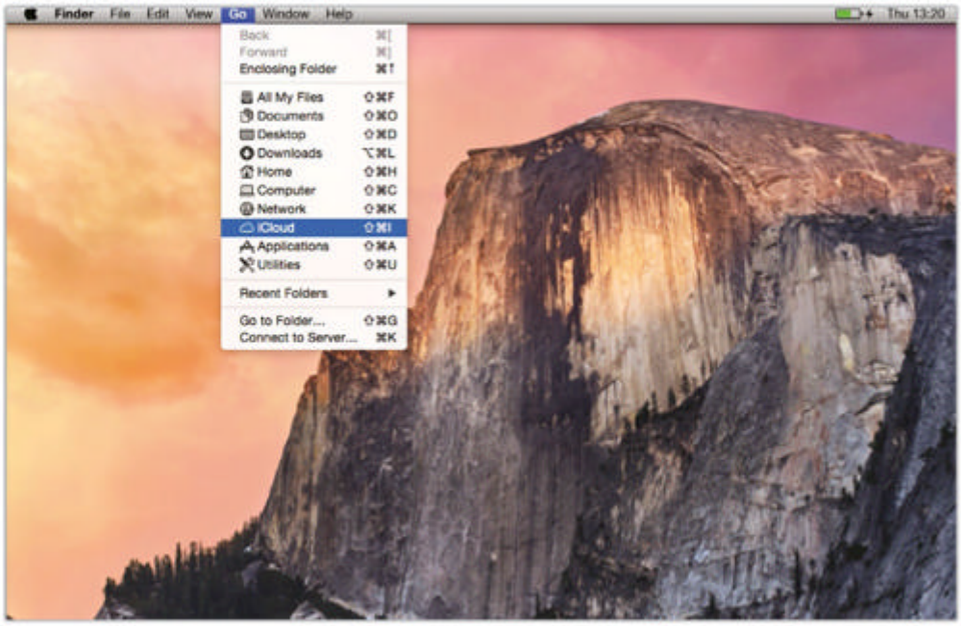
Your remote storage appears just as if it was a locally connected hard drive, and you can drag and drop any file onto it

iCloud pricing

- 5GB: Free
- 20GB: 79p/month
- 200GB: £2.99/month
- 500GB: £6.99/month
- 1TB: £14.99/month



Any app that offers a File > Save option can save directly to iCloud Drive, making its files available on other Macs (if you have any).



In Finder on a Mac, you can jump straight to the top level of iCloud Drive by pressing ⌘+⇧+I or choosing Go > iCloud Drive.

iCLOUD TIPS

- Keep everything organised by creating and naming folders inside your iCloud Drive. Apple does this automatically for its own apps, but not for manually uploaded files – right-click and choose New Folder.
- If you choose to enable mobile access to iCloud Drive on iOS then you need never be away from your files again. Access them from your iPhone or cellular iPad, but be mindful of any data allowance limits you may have.
- Dragging items into iCloud Drive from your Mac is a good way to back them up instantly without having to wait for Time Machine to do its hourly thing locally.

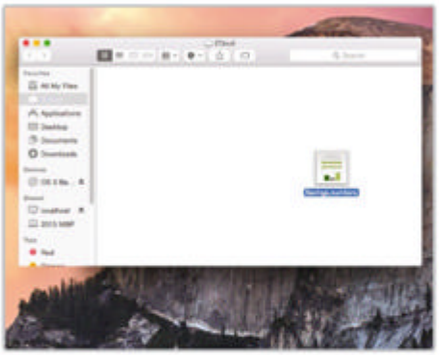
deal with much smaller files. Even pictures are pretty easy to upload and download over a fast internet connection.

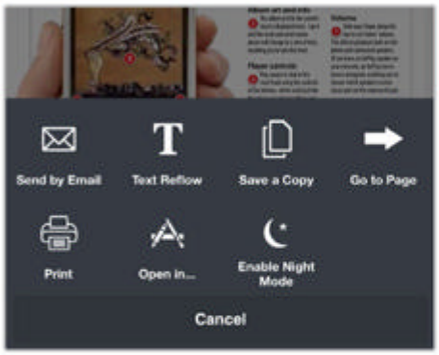
When you view iCloud Drive on a Mac, you'll see some folders that have automatically been created by apps that you've used to save to your online storage. You might find one folder for Numbers spreadsheets, another for Keynote presentations and so on. However, you're not limited to this rigid organisation because iCloud Drive also allows regular, arbitrary file storage according to your needs – you might want to group files from two or more apps in a single folder because they all belong to the same project, for example. This means you'll have to remember where you've stored things and navigate to them, though you can sort your Drive's contents by date, name and even tags (the latter can be added only on a Mac, not iOS).

Although iOS does not include an app like Finder to browse your iCloud Drive, there are several third-party apps that work as a substitute. One of the best is Readdle's Document 5 (Free, https://appsto.re/i6LR3MT). You can use it to view many file types that are natively supported by iOS itself. In the case of PDFs, its Text Reflow option strips away any fancy presentation and gives you a text-only rendition of the document's contents, and a choice of fonts and sizes, akin to how Safari's Reader feature extracts the text and images that make up a web page's real content. You can also use the app as a launchpad to send files from Drive to other apps that can read them.

HOW TO | GET A FILE FROM MAC TO iOS USING iCLOUD DRIVE







1 Enable iCloud Drive on your Mac

Go to System Preferences > iCloud and make sure you're signed in with your Apple ID. Switch on iCloud Drive at the top of the list of available services. Open iCloud Drive from Finder's Go menu or by clicking it in the sidebar of any Finder window to view the files stored on it.

2 Drag and drop

Drag and drop a file or folder from your Mac into the window that shows iCloud Drive's contents and it will be uploaded to the cloud. This will be quick for smaller items, but could take a few minutes for larger ones. In icon view, notice the progress bar at the bottom of its icon and the word 'Syncing' below its file name.

3 Access the file in iOS

On your iOS 8 device, use an app such as Documents 5 to browse iCloud Drive's contents. When you tap a file iOS can read, Documents 5 will be able to display it. Tap the share button at the top-right for various options, including one that can send the file to any installed app that is able to read its format.

Using iCloud Drive on a Mac

Keep your files in sync between your Macs and iOS devices

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
OS X 10.10, an iCloud account and, optionally, an iOS 8 device or another Mac

When you sign into an iCloud account in System Preferences, your Mac is able to sync data such as Safari bookmarks, calendars and reminders between your devices using the 5GB of storage space that Apple provides for free. That storage space can also be used to store your documents, so that you can work on a Pages file using your Mac, save it to iCloud and then pick it up on your iPhone or iPad.

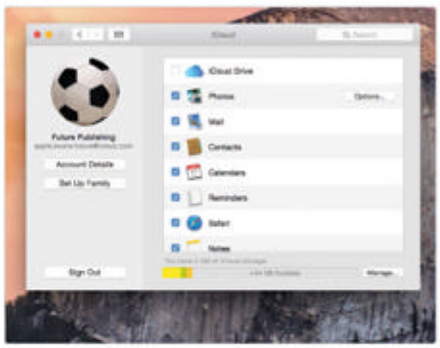
You can access your iCloud Drive storage by clicking this in the sidebar of a Finder window, or by pressing ⌘+⇧+I at any time – even when your Mac is offline (although the contents may then not be up-to-date).

iCloud Drive is a lot like having a USB flash drive for shuttling files back and forth as you move between computers, except that you don't need to worry about disconnecting and taking it with you at the end of the day. As long as your Mac has an internet connection, anything you save to iCloud Drive gets automatically uploaded and then synced to your other devices. You can even access the contents of your drive on any computer anywhere through a web browser – just sign in at icloud.com when you're away from your Apple devices. If you do so, though, remember to upload anything you've modified again using your browser. After you do that, iCloud takes over and syncs it back to your Mac and iOS devices.



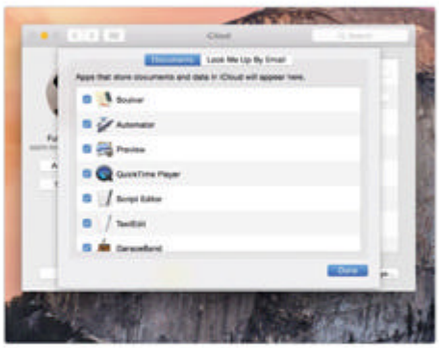
iCloud drive works much like a removable drive, but files sync to it automatically and then to all your devices.

HOW TO | GET MORE OUT OF iCLOUD DRIVE



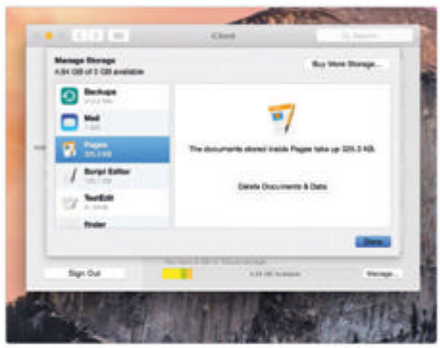
1 Enable iCloud Drive

Sign in to your iCloud account in System Preferences. iCloud Drive is listed at the top of the list of iCloud features. Tick the adjacent box. If you used its predecessor, Documents in the Cloud, to store things, you'll be asked whether to upgrade it to Drive. Be aware that devices that you can't upgrade to iOS 8 or Yosemite won't be able to sync with iCloud Drive.



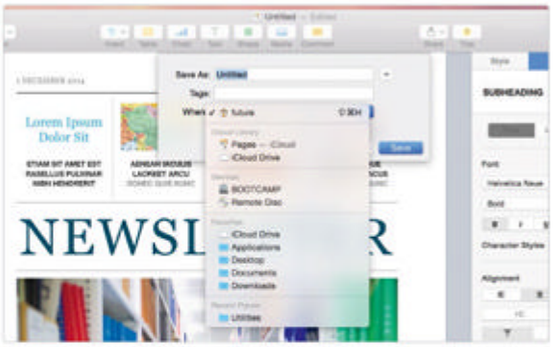
2 Control your storage

With iCloud Drive turned on, click its Options button to see a list of apps. Your iCloud account provides 5GB of space for free, but as well as storage for these apps, it's also used for iOS device backups and email. Unticking a box here removes any folder an app has created at the top of Drive, but it doesn't prevent you manually saving to Drive (see opposite).



3 Tidy up storage

Click Manage at the bottom right of iCloud's preferences to see what's using your iCloud storage. Selecting an app reveals how much space its documents and data take up in iCloud, plus a button to delete it all. This is fine for, say, a game you'll never play again, but risky with documents you've created. It's better to search Drive using the Finder (see opposite).



4 Save a document

Saving to iCloud Drive works just like saving to your Mac's local storage. With Drive turned on, save a new file and you'll see the usual Save dialog. When you click the Where pop-up, in addition to lists of devices and favourite folders, you'll see extra options under a new heading: iCloud Library.

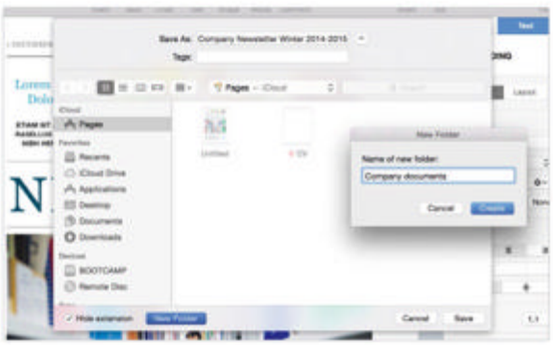


5 Save options

If Where is currently set to a local folder, you'll see two iCloud Library items: one that saves to a folder named after the app you're using (this is how Drive's predecessor worked, but other apps are now able to save here), and one labelled iCloud Drive, which dumps the file loose at the top of Drive.

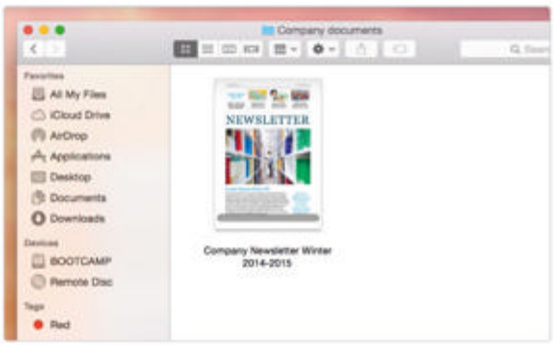
MANAGE FILES

Your iCloud Drive can be browsed and organised freely in the Finder. Select it in the sidebar and you can browse your Drive, create folders, move files around and copy them to and from other locations on your Mac, just as you can on a physical drive.



6 Save wherever you want

Click the triangle next to the filename to expand the dialog to a view similar to a Finder window. Now you can browse all of Drive's contents and save the file wherever you like, just as on a drive directly attached to your Mac. Click New Folder to create whatever folder structure suits you.

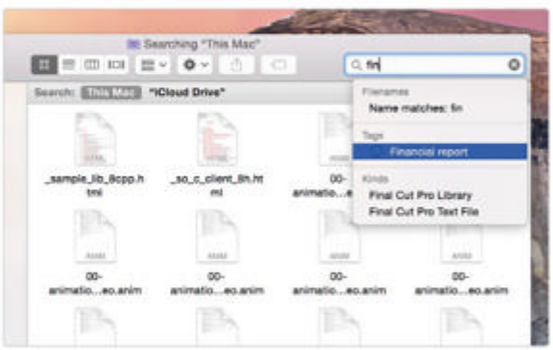


7 Patience pays off

When you save a new or modified document, it takes a moment to upload to iCloud Drive. Browse to its location in Finder and a progress bar will be shown on its icon until it's synced to Drive. If you'll next work on this file on a different device, ensure this is gone before shutting down your Mac.

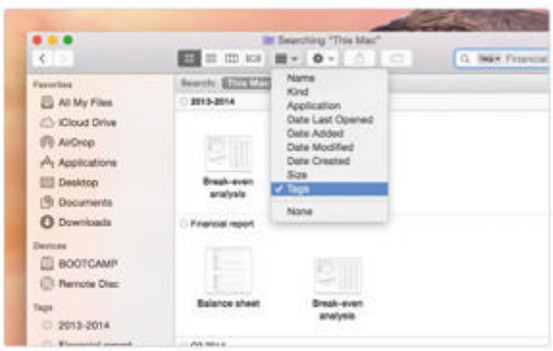
KEEPING IN SYNC

The contents of your iCloud Drive are automatically synchronised between all your devices linked to the same Apple ID, but you need to be careful that the device from which you make changes to a file is online so that those changes propagate to the other devices.



8 Search for files

Storing things in any way you want can make them hard to find later. Go to Drive in Finder and type in the search bar. In the bar's suggestions list, pick an attribute (in our case, a tag). Finder will show matches regardless of location and kind. Finally, set the options bar to look only in Drive.



9 Arrange files by their tags

After you've searched using tags, click the Item Arrangement button in the dialog's toolbar and pick Tags. This changes the presentation of results so that matching files are visually broken up into groups by tag, which can help you to quickly sift through a large list of matching files.

Using iCloud Drive on iOS

iCloud Drive enables you to access your content across devices

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
iPad, iOS 8, an iCloud account and apps that can save to iCloud Drive

When you sign into an iCloud account on your iPad, your device is able to sync data such as Safari bookmarks, the keychain that contains your website usernames and passwords, calendars, reminders and contacts to the cloud – and from there to your other devices. This works in reverse too, so any changes you make on another Apple device, or by signing in to icloud.com, are synced to all of your devices, including your iPad. It isn't just the more minor pieces of data that are kept in sync, though.

iCloud is also able to store documents, just as you would on a drive attached to your Mac, enabling you to update those files wherever you have access to an app that can open them, and keeping them in sync between devices, too. For example, you might enter data in a spreadsheet in Numbers on your iPad. As long as that iPad has been able to connect to the internet (and the same is true of the device you switch to), you can be assured that the spreadsheet will be available on, say, your Mac. So you can write up a report about your data later on if you like.

With the introduction of iOS 8 and OS X Yosemite, Apple has changed the way in which documents are stored and browsed in iCloud. The old system, called Documents in the Cloud, provided strictly separated areas for each app's files. Its replacement, iCloud Drive, is far more flexible, as it works much like the Finder in OS X.

iCloud Drive can store documents from different apps in the same folder, and you can nest folders inside each other so that things are organised exactly as you want them to be. iCloud Drive retains the previous system's tagging feature, which enables you to assign keywords to files and then search for them instead of filenames.

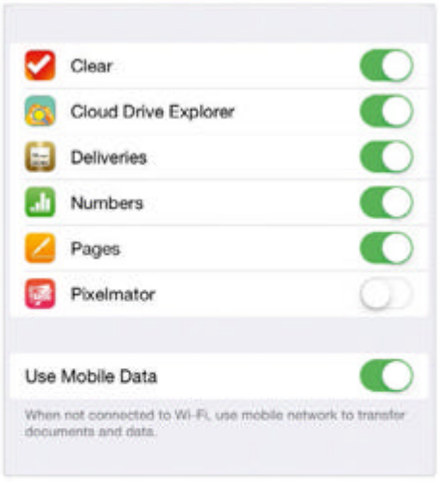
We'll show you how to enable iCloud Drive, but this comes with a word of caution: if you need to access documents stored in iCloud on a Mac that is unable to run OS X Yosemite, you should refrain from enabling iCloud Drive and stick with the old system. When you do, files that you stored in the old Documents in the Cloud system won't be automatically kept in sync on older versions of OS X. The same is true if any of your devices are not yet running iOS 8.

HOW TO | SET UP iCLOUD DRIVE



1 Enable iCloud Drive

When setting up your new iPad or upgrading an older device to iOS 8, you had a choice to turn on iCloud Drive. If you didn't at the time, you can change your mind by going to Settings > iCloud > iCloud Drive and turning it on. If your Mac can't run OS X Yosemite, migrating to iCloud Drive means your Mac won't be able to automatically sync files or access them in the Finder, though you can manually store and retrieve them through icloud.com.



2 Control your storage

After iCloud Drive is turned on, the same page in Settings shows a list of apps that are able to save to it. Each has a switch next to it that can be turned off if you don't want an app to use space – you may want to prevent an image editor taking up lots of room. Below the list of apps is a global switch that can be flicked to prevent all apps using the mobile network (on iPads equipped with that type of connection) and restrict them to Wi-Fi.

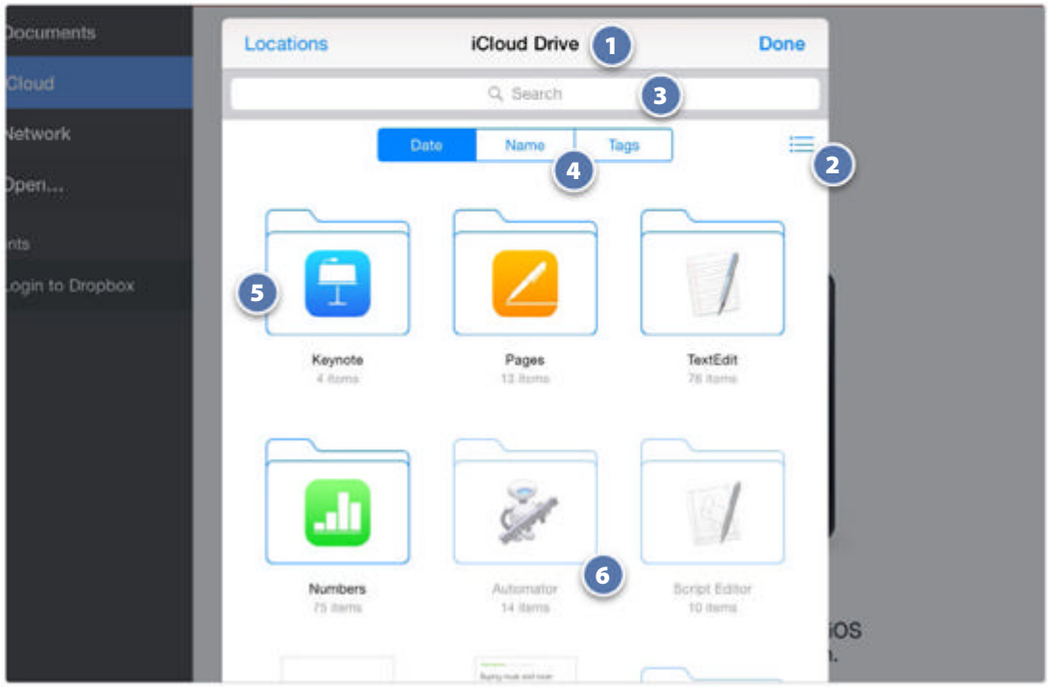


3 Look up iCloud users

Above the list of iCloud Drive enabled apps is an item labelled 'Look Me Up By Email'. Apps can provide a means of looking up other iCloud Drive users – perhaps because they want to collaborate with you. However, you don't have to allow this. When you tap that item, you'll be taken to a page that lists apps with this capability, giving you control over exactly which individual apps can find you in this way using your email address.

VISUAL GUIDE | iCLOUD DRIVE'S DOCUMENT PICKER

Here's how to browse files that you've saved to iCloud Drive



1 Browsing

Some third-party apps use an iCloud Document Picker that Apple provides – like this one in PDF Expert – for managing documents. It works like Finder on the Mac and Explorer in Windows, and it differs from the Documents in the Cloud system available in older versions of iOS because folders can be nested within other folders, and files from different apps can be stored together by project or by whatever abstraction makes sense to you.

2 Different views

In the top-right corner of the Document Picker is a button that toggles between two different views; the default is a grid of icons (shown above) and the other is a list view, with icons displayed smaller in a left column and folder names to their right. In both, folders display the number of items at the next level down, but folders inside them may contain many more items. As you tap into folders, the picker stays in your selected view.

3 Search for something

When you tap the search bar, the keyboard slides into view. Start typing something and the list will be filled with matching files found anywhere in your iCloud Drive – not just those that are located in the current folder. The same controls for sorting files and folders that are available when browsing are also available here. Note that what you type is looked for in file and folder names, but isn't looked for in file contents.

4 Sorting files and folders

When at the top of a folder, swipe downwards to pull a group of three buttons into view. These allow the folder's contents to be sorted by the date they were last modified, newest first; or alphabetically, with A at the top (you can't tap again to reverse the order, and unfortunately there's no alphabetical index like the one in the Music app to jump through); or you can sort by tags you might have added when saving the file.

5 Folders made by apps

Some folders in iCloud Drive will display an app's icon because that app has created the folder. Unlike Documents in the Cloud – the predecessor of iCloud Drive featured in iOS 7 – you aren't restricted to storing things from a single app in a folder. If you have documents from Pages, Numbers and Keynote that are related, for example, you can keep them all neatly together in a single project folder.

6 Browse folders

Folders on iCloud Drive work just as they do on your Mac or in Windows. Simply tap one to browse its contents. If you like to organise your work by putting folders inside other folders, don't pay too much attention to the item count next to each one. It indicates how many items are in the next level down, rather than being a cumulative total calculated by looking at everything inside the folder you're looking at. You'll still have to open it for a more complete picture.

Set up an iCloud Keychain

Access website logins and bank cards on all your Apple devices

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
OS X 10.10

Remembering login details for a multitude of websites isn't easy. Passwords either end up being difficult to remember, or you make them so simple that they're easy for others to work out. But Safari and many other web browsers can save your credentials so you can set a stronger password and never have to memorise it.

You might want to log in to the same websites on an iPhone, iPad, iPod touch or another Mac. iCloud Keychain saves you having to enter the same login details on all of your devices. It can remember bank card details as well – but it won't store the security code from the signature strip. Apple says that your keychain is protected with high-level 256-bit AES encryption.

Keychain saves you having to enter the same login details on all of your devices

With Keychain set up, the first time you log in to a website from one of your devices, it'll ask whether to record your details. This isn't compulsory, and you might decline for sites that contain sensitive data. However, if you allow details to be stored, they're synced to iCloud Keychain. From there, they are sent to your other devices, saving you the hassle of having to type them. When you visit one of those sites in future, Safari automatically fills in the login form. All you have to do is tap a button to submit it.

QUICK LOOK
KEY FEATURES

Secure your keychain

1 Setting up iCloud Keychain involves more than just ticking a box in iCloud's preferences. You'll need to set a security code, and remember it to sync the keychain to additional devices.

Safari asks for permission

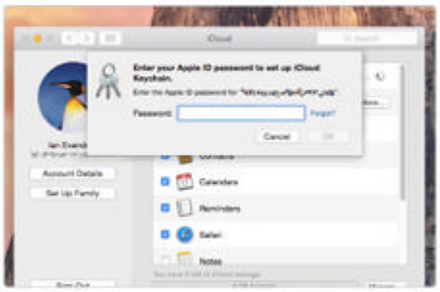
2 iCloud Keychain depends on Safari's AutoFill feature. When both things are turned on, Safari recognises when you log in to a website and asks permission to save the details to your Keychain.

Bank card details

3 Safari can store bank card details, too. They can later be modified and removed in Safari's preferences, under AutoFill > Credit Cards > Edit. Changing the card number requires the password for your user account.

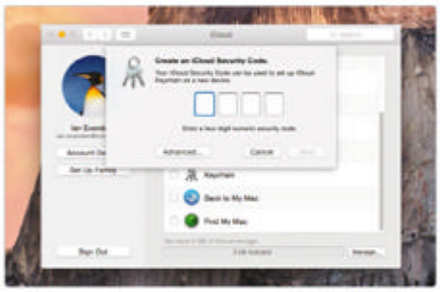


HOW TO | AUTOMATE YOUR PASSWORDS WITH KEYCHAIN



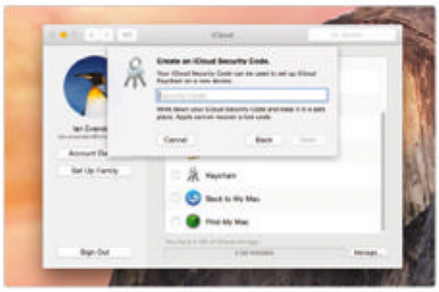
1 Turn the key

Open > System Preferences and click the iCloud icon. We'll assume you're already signed into your account. Scroll down the list of features and turn on the Keychain option, enter the password for your Apple ID when asked for it, then click the OK button.



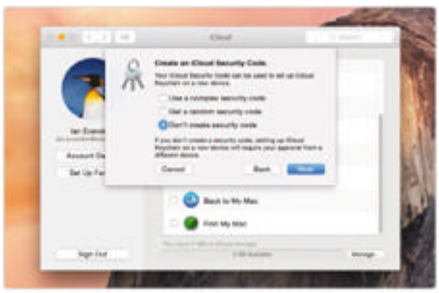
2 Set a security code

Enter a four-digit security code, or see step 3 for stronger options. If you forget it, Keychain can't be set up without resetting the online copy – an existing copy can be retained on your Mac to start over, though. Enter a code, click Next, then confirm it.



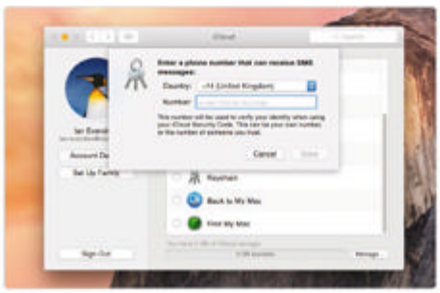
3 Set a stronger code

Alternatively, click Advanced to set a more complex code that can contain letters and symbols, or to have a complex, 24-character code generated for you – you'll probably want to write that one down and keep it somewhere safe because it's hard to memorise.



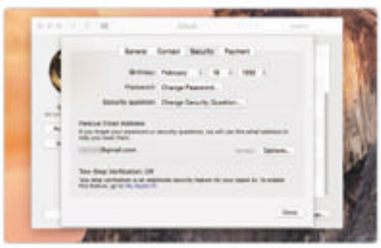
4 Risky situation

Choosing to have no security code doesn't make your account less secure, but it's troublesome if you have only one device and it's lost or becomes inoperable. You won't be able to set up Keychain on a replacement device and will have to start over from scratch.



5 Verification codes

Enter a mobile phone number that can receive SMS messages, then click Done to finish. Keychain is now ticked in iCloud's preferences. Messages are sent only when you try to enable Keychain on another device, which requires a verification code from the SMS.



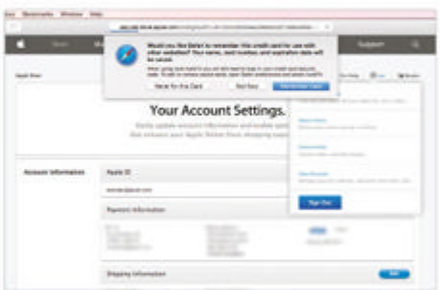
NEW PASSWORD

If you need to change your password, perhaps because it's been compromised, click Account Details in the iCloud preferences pane, then click Change Password.



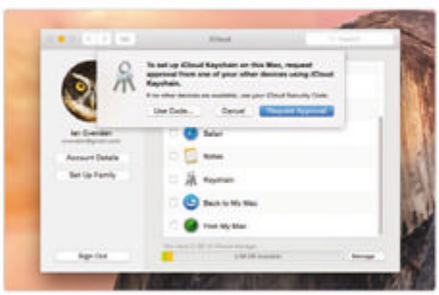
6 AutoFill in Safari

In Safari's preferences, click AutoFill and tick 'User names and passwords'. When you log in to a website, Safari asks whether to save your credentials to iCloud Keychain. This isn't compulsory for every website – you might exclude online banking sites, for example.



7 Bank cards

Also under AutoFill is an option to remember bank cards. Cards can be removed and amended by clicking the adjacent Edit button. If Safari recognises you've entered card details in a form, it offers to store them – except the signature strip's security code.



8 Sync across devices

When you enable Keychain on another Mac running Yosemite or an iPhone, iPad or iPod with iOS 7 or newer, you'll be asked to approve the action from a device on which it's already set up, or by sending a verification code to the mobile phone number you specified in step 5.

Set up iCloud Keychain in iOS

How to use Apple's online password service

SKILL LEVEL
Taking things further

IT WILL TAKE
20 minutes

YOU'LL NEED
iPad, iOS 8, Apple ID, iCloud account, and optionally another iOS device, or a Mac running OS X Mavericks or later

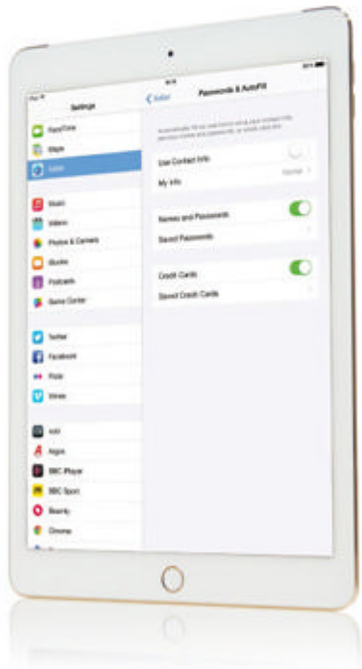
Sometimes it seems like every website you visit requires you to sign up… This means you have to come up with a strong password – one that's long and complex enough to be hard to crack or guess. Remembering many strong passwords can be tricky.

Tempting though it may be, it's not safe to use the same password for lots of sites. Writing down passwords is also a huge security risk, which is where iCloud Keychain steps in. You can save many different passwords to a keychain that's stored in your iCloud account; the keychain is accessible only on devices on which you sign in with your basic account credentials and then clear a security process to grant access to your keychain's contents on that device.

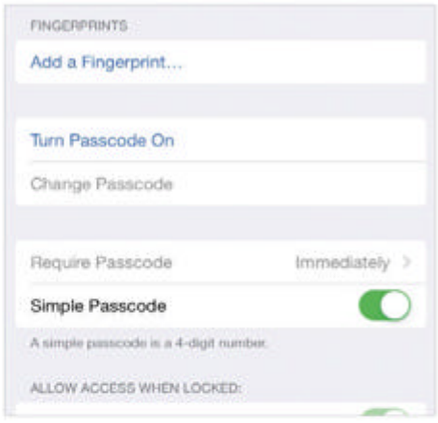
Keychain remembers all saved details and fills them in for you when required. It keeps login details and passwords in sync across all your authorised devices. So if you sign up to a website on your Mac, you'll be able to sign in to that site more quickly next time you access it from your iPad or iPhone.

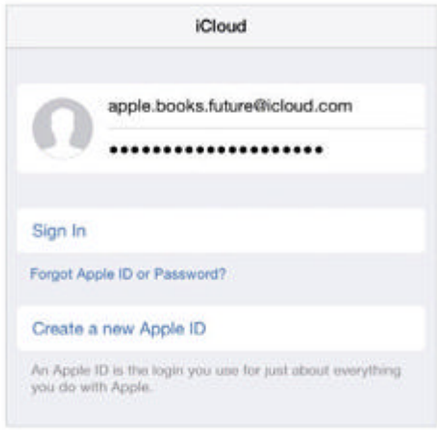
With iCloud Keychain, a single tap of AutoFill enters any login information and password you've saved. So you can more easily use discrete, complex passwords on each site you visit – and iOS can even suggest one for you.

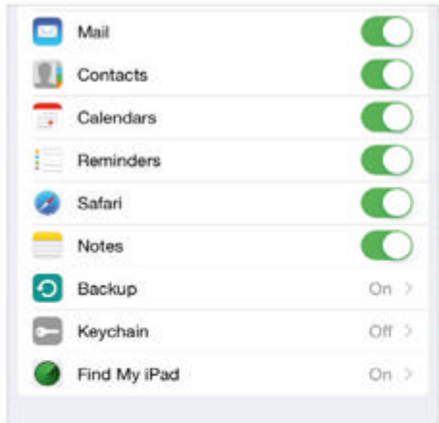
Don't write passwords down or use the same password everywhere – let iCloud Keychain save them for you



HOW TO | SET UP ICLOUD KEYCHAIN ON YOUR IPAD







1 Setting up a passcode

You should protect your iOS device – and hence your keychain – with a passcode. This code will be needed to access your device, and to manage information in iCloud Keychain. Tap Settings > Touch ID & Passcode > Turn Passcode On. Enter a four-digit code, then repeat it to verify your choice. Below that setting, Require Passcode sets a duration before your passcode is required after the iPad locks itself (Settings > General > Auto-Lock) or you put it to sleep.

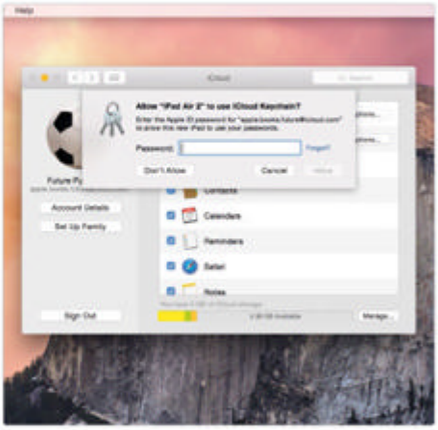
2 Signing into iCloud

iCloud Keychain stores account credentials for websites and credit card details online, so you'll need to have created an Apple ID and signed in with it under Settings > iCloud. Your iOS device will ask if you want iCloud to use your location. This isn't needed by Keychain, but it enables the valuable Find My iPhone/iPad service. iCloud should now be up and running on your device, but Keychain requires some extra steps before it'll start working.

3 Set up iCloud Keychain

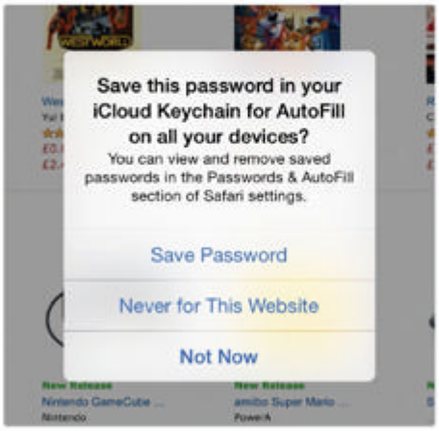
Most iCloud features are switched on by default, but Keychain is one that requires manual activation. Tap Settings > iCloud > Keychain and switch on iCloud Keychain. The iPad or iPhone will now request your Apple ID password; enter it and then tap OK. If you've already set up Keychain on another Apple device linked to the same iCloud account, you'll need to approve your new device on that one, or provide the security code you set during that process.

HOW TO | SET UP ICLOUD KEYCHAIN ON YOUR IPAD (CONTINUED)



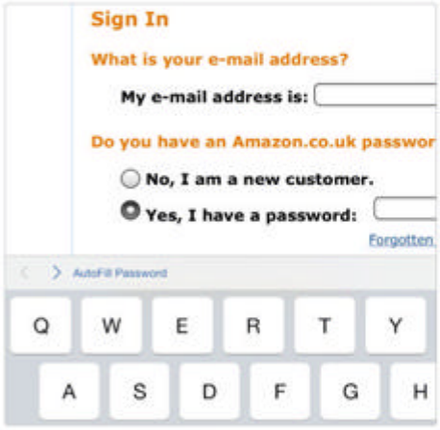
4 Approve access

If you opt to approve access to your keychain using another device, you'll receive a notification on it. On a Mac, click View on the notification to open System Preferences' iCloud pane, then click Details next to the Keychain item. Enter the password for your Apple ID and click Allow. Alternatively, when the notification appears on your other iOS device, enter your password and tap Allow to grant access.



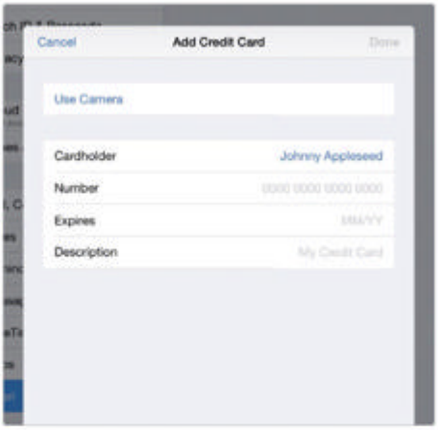
5 Save password details

Ensure Settings > Passwords & AutoFill > Names and Passwords is on. In Safari, go to a page that requires a user ID and password. Submit yours. You're given the option to save them, but you can opt not to, either for now (perhaps you're changing them) or never. With iCloud Keychain enabled, the credentials are synced to your authorised devices and you won't have to type them. (When creating an account, 'Suggest password' appears above the keyboard.)



6 Automatic passwords

You're able to fill in credentials saved to your keychain using any device you've chosen to authorise to use it. On your iOS devices, when you tap on a form to provide credentials, an AutoFill Password button appears at the top left of the keyboard. Tap that and your user ID and password will be inserted in their respective fields for you, and you only need to tap the form's button to submit the details and sign in.



7 Credit card details

Bank card details can be stored when Settings > Safari > Passwords & AutoFill > Credit Cards is turned on. When you submit card details to a website, Safari asks whether to remember them. As a precaution, the security code isn't saved. Cards can also be added in the Passwords & AutoFill settings. Tap Saved Credit Cards > Add Credit Card and type the details, or tap Use Camera to capture them from the front of the card. Enter a description to identify the card.



8 Manage passwords

You can manage passwords in your keychain under Settings > Safari > Passwords & Autofill. Tap Saved Passwords and enter your iPad's passcode. Tap an item to view the website address and your username and password. To remove several passwords from the list, tap the Edit button, then the unwanted passcodes, and finally tap Delete to remove them. To remove one quickly, swipe from right to left across it and tap the Delete button that appears.



9 Adding information

AutoFill can use your details (from the card labelled as 'Me' in the Contacts app) to fill in online forms. In Safari's Passwords & AutoFill settings, if your name is already next to My Info, just switch on the Use Contact Info option. Otherwise, tap My Info, find your name in the list, and then tap it to identify it as you. The Use Contact Info option will be enabled after you do this. In a form, tap a field and then tap AutoFill at the top of the keyboard to insert your details.

Using iCloud Photo Library

Store every photo you snap in the cloud forever

SKILL LEVEL
Anyone can do it

IT WILL TAKE
Five minutes to set it up, longer to upload photos

YOU'LL NEED
iPad, iOS 8, iCloud account, photos

Keen photographers often become painfully aware of the problems with taking snaps on different iPhones and iPads, and then trying to sync them all up. Apple already has a powerful solution, called My Photo Stream, which syncs the last 1,000 photos snapped on any device linked to your Apple ID, making them available on all your devices. My Photo Stream is still available in iOS 8, but Apple has introduced a more powerful option called iCloud Photo Library.

With iCloud Photo Library turned on, any shot you take on an iPhone, iPad or iPod touch is uploaded to your iCloud account. Unlike My Photo Stream, there is no 1,000 image limit, and images aren't removed after 30 days. It's a consolidated library that your iOS devices and your Mac all contribute to. Every photo you add to the library then becomes available on your other iOS 8 devices and Macs running Yosemite.

The catch? Well, unlike with My Photo Stream, the images you store in iCloud Photo Library count towards your overall iCloud storage quota, and you get only 5GB for free. Apple has made it a lot cheaper to buy additional space, though, with 20GB now costing just 79p a month. On a Mac, you'll need to update to OS X 10.10.3 and migrate your iPhoto or Aperture library to the new Photos app for Mac.

It's also important that you don't entrust a lifetime's worth of photos to iCloud Photo Library alone. If you aren't already making backups of your Mac, you should at least use Time Machine, and ideally make a second copy to store offsite. Let's turn on iCloud Photo Library and see how it works…

1 Activate iCloud Photo Library

On your iOS device, turning on iCloud Photo Library is done in Settings > iCloud > Photos. Turn on the eponymous switch and further options to download full quality photos or optimise them to fit your device's storage appear below. With iCloud Photo Library switched on, all the photos stored locally are copied to your iCloud storage. You no longer sync photos to your device through iTunes on your Mac; all your devices sync online.

2 Optimise space

One of the great things about iCloud Photo Library is that it enables you to free up space on your iPad. This is because iCloud Photo Library can upload the full-size photos to your iCloud online storage space, and then store only smaller copies on your iPad. So instead of Download and Keep Originals, tap the option to Optimise iPad (or iPhone) Storage to store smaller versions locally and the originals online.

3 Older devices

Apple has not removed My Photo Stream, which also gives you access to your photos captured on different Apple devices. My Photo Stream is handy to keep on, because it enables you to view photos from devices that aren't using iCloud Photo Library – which currently includes Macs running OS X 10.9 (and earlier) and the second-generation Apple TV.

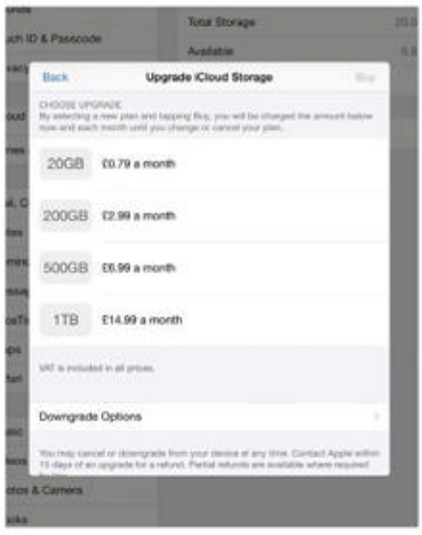
Apple has made it a lot cheaper to store more in iCloud – 20GB is now 79p a month

Back up your shots

Although iCloud Photo Library consolidates your photos online, the images in it are linked to the library on your Mac. There's a danger that one copy being lost will impact the other. It's wise to keep another backup. The simplest method is to ensure Time Machine backs up your Photos library. You might also periodically copy the library to a second, external hard drive to store offsite.



Time Machine is part of OS X. All you need to use it is an external hard drive. A 2TB portable drive costs under £70.



Buy more storage

You might want to buy more storage so iCloud can store all the photos taken using your iOS devices (which upload straight to iCloud Photo Library) or taken with any other camera and added to your Mac's library. On your iOS device, go to Settings > iCloud > Storage and then click the Buy More Storage button.

4 Burst photos

On recent iOS devices, keeping the shutter release button held down when taking a photo takes several in quick succession. iOS suggests the best one and hides (but retains) the others. To conserve storage, the extra shots aren't uploaded to iCloud Photo Library unless you turn on this option. Doing so enables you to review all versions on a device with a larger screen.

5 Viewing all your photos

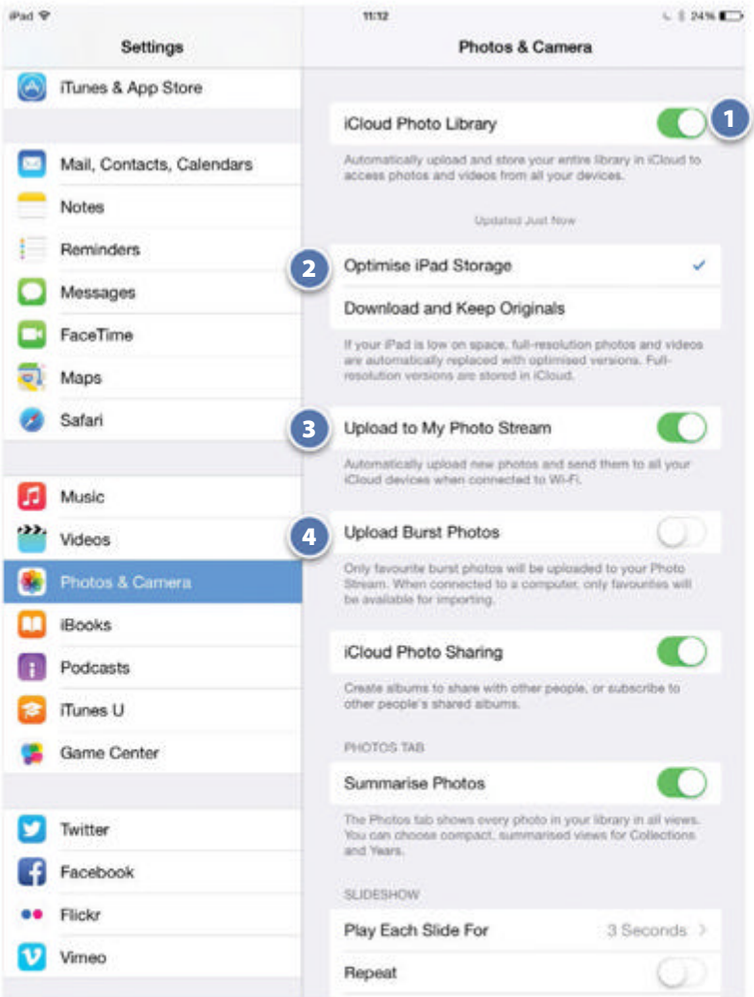
With iCloud Photo Library switched on, the Years, Collections and Moments views in Photos display every photo snapped on all your Apple devices that are using iCloud Photo Library. The Years and Collections views both show a selection of images snapped in a similar time and place, regardless of which device; Moments displays every photo, also grouped by time and place over shorter periods.

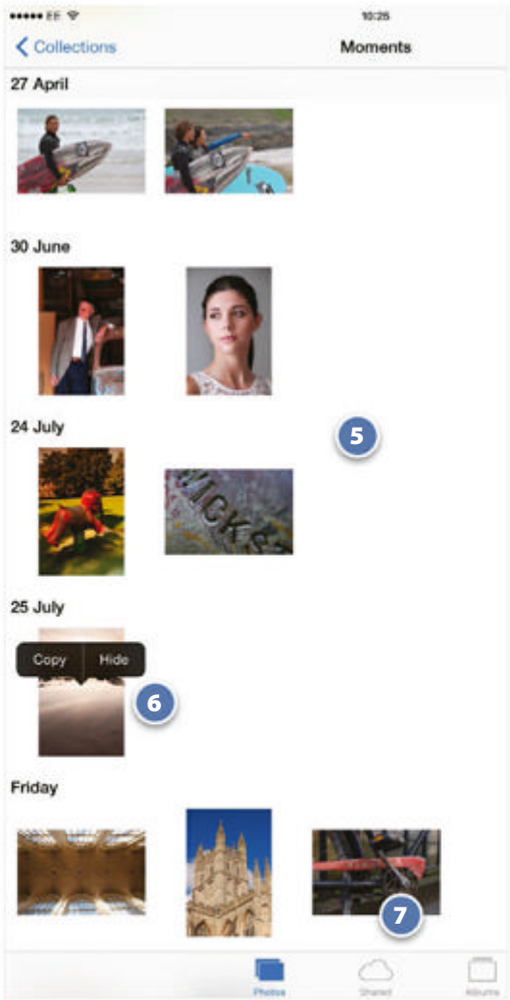
6 Hiding images

You'll quickly realise that some snaps are better off not on display. You can delete images from your iCloud Photo Library, but what if you want to keep an image around but just hide it? The Photos app features a handy Hide option that enables you to do just that. Tap and hold on the image, and then select Hide. The photo can still be viewed in a new folder called Hidden in the Albums view.

7 No more Camera Roll

The Photos tab displays all of your images, and you can group images into Albums or create Shared Albums to show them off, but there's no longer a Camera Roll when iCloud Photo Library is turned on. In previous versions of iOS, this was among your Albums. Because all images are now stored on iCloud and accessible via the Photos tab on every device, it makes no sense to divide the images between those in Camera Roll on this device and those in iCloud.





Staying safe in the iCloud

When you upload stuff to the cloud, you need to know it's protected

When you send anything over a network connection you no longer technically have control over it, but that doesn't mean it's necessarily in any danger. Any technology company stakes its reputation on the security of your data, and this becomes even more important when we're encouraged to store an increasing amount of items in the cloud, whether that's documents, photos, passwords or other sensitive personal data. Although Apple does a great job of hiding the nuts and bolts of how this all works from the end user to ensure a better experience, there's actually a lot going on behind the scenes to ensure that all your iCloud data is protected, and other cloud providers do much the same with anything you upload.

Keep it secret, keep it safe

Remember: all your iCloud data and files you store in other cloud services is encrypted. Apple uses a minimum of 128-bit AES encryption for all iCloud data whether it's in transit or stored on its servers. That's the same level of security used by big financial institutions, and Apple never provides the encryption keys to third parties. For iCloud Keychain, even Apple can't access the keys used to encrypt your passwords; they're created on your device, and only encrypted keychain data passes through Apple's servers.

You can even choose to disable keychain recovery, which means that the encrypted data isn't even stored with Apple, though the flipside is that if you somehow lose all your devices, the keys can't be recovered. Only trusted devices that you allow can access your iCloud Keychain. All your sessions at icloud.com are also encrypted with SSL, an industry-standard security protocol that allows data to be sent between a browser and a server in a fully encrypted format so that it can't be intercepted by anyone with malicious intent. When you use Apple's own apps like Mail, Contacts and Calendar on iOS and OS X, authentication takes place using secure tokens, eliminating the need to store your iCloud password locally. Web technology is so commonplace these days that this kind of encryption is a part of all major websites, and helps to keep you safe online.

Unfortunately, the weakest point in any system is the end user, and when there have been failures in cloud systems, they've almost always been a result of hackers guessing people's passwords, or 'phishing' attacks that trick people into visiting fraudulent websites that purport to be official and getting people to enter their real details, which are then promptly stolen. You may well have seen spam emails claiming to be from Apple or PayPal, but you should never click on the links they contain. If in doubt, go through the real website to find out if there's really a problem. Fake emails can often be identified by poor spelling or a failure to include your real name, beginning with something such as 'dear customer' or similar approaches.

Fluffy2015

Tech companies recognise that people are fallible and in recent years have been forcing users to employ more secure passwords. You can't stop someone choosing their pet's name, but you can at least make them include an uppercase letter, a number and a non-alphanumeric character. Apple requires a minimum of eight characters, a number, an uppercase letter, and a lowercase letter, and



All the traffic between your computer and Apple's servers powering icloud.com is encrypted to keep it secure.

JARGON BUSTER

SSL stands for Secure Sockets Layer. It's a protocol that secures all communication between a client and a server; in practice that means between a web browser and the site you're visiting, or your mail server and mail client. It's transparent to users, but usually denoted by a small padlock sign appearing in your browser.

Encryption is the process of obfuscating data into a format that essentially looks like a string of gibberish, were you even able to intercept it. A key generated on one end of the connection allows the software at the other end to understand and decrypt the information. This happens transparently and essentially instantaneously for the user.

The keychain on your Mac is a method for generating and storing passwords and other login data in a secure format. If you use iCloud Keychain, Safari is able to generate extremely complex passwords and share them across all devices you have chosen to trust with that information. Since encryption happens on your device, it shouldn't matter whether you log in to the cloud from your home broadband network or from your cellular device. The information is encrypted before it's sent.

A recovery key is a string of characters that can be used to unlock an account when you have lost or forgotten your password. It's important to keep it safe!

Safari can suggest and remember complex passwords for you if you use iCloud Keychain.

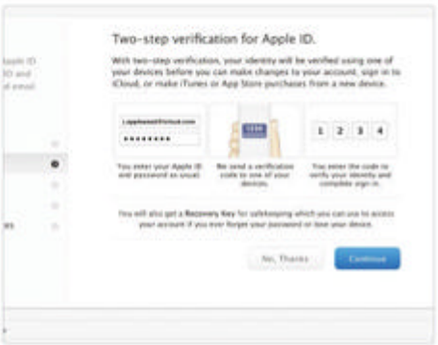
The Keychain Access app on your Mac has a password generator that can come up with strong passwords. The reason a string of random characters is so secure is firstly that it can't be guessed, and also it's resistant to 'brute force' attacks which automate the trying of hundreds of thousands of combinations of characters to break into an account.

Two-step verification

In response to a recent high-profile 'hack' of iCloud pictures (widely believed to be a result of acquired passwords and not smashing through Apple's security), the company has increased awareness of its optional two-step verification for your Apple ID. This essentially means that you have to verify your identity using one of your devices before you can edit your Apple ID, sign in to iCloud on a new device, make any iTunes, iBooks or App Store purchase or get Apple support. After you turn it on there's no practical way for anyone to access or manage your account without your password and access to your trusted device. You get a recovery key, but if you lose access to two of these three items at the same time you'll probably be locked out of your Apple ID, so be mindful of this.

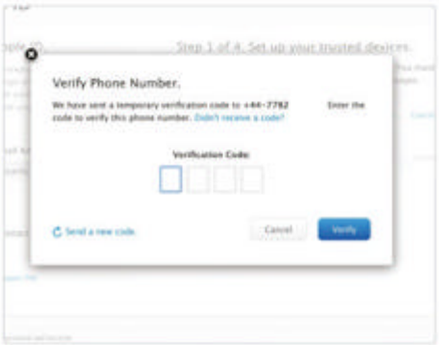
The iPhone 5s, 6 and 6 Plus, the iPad Air 2 and the iPad mini 3 all have Touch ID – Apple's fingerprint scanner – built into the hardware. This remarkable piece of tech reads your unique fingerprint and uses it to unlock your device and also to authenticate iTunes, iBooks and App Store purchases on your device. It's very secure, because it encrypts your fingerprint and stores it in a special chip on the device that isn't accessible to other software. However, third-party apps approved by Apple can also use Touch ID for authentication. These include 1Password, Amazon, Camera Plus, Evernote, Scanner Pro and Yplan, and the list is growing.

HOW TO | MASTER YOUR iCLOUD BACKUP SETTINGS



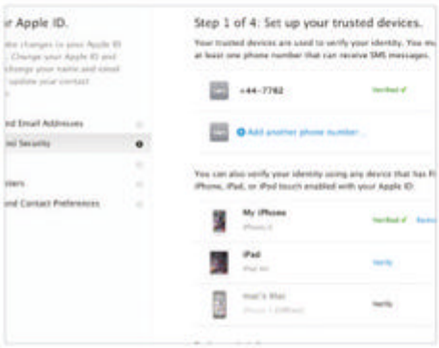
1 Log in to Apple

Go to appleid.apple.com in your Mac's web browser and sign in using your Apple ID. Go to the Password and Security section and then click 'Get started' under Two-Step Verification. You'll need an SMS-capable phone and an iOS device signed in with your Apple ID.



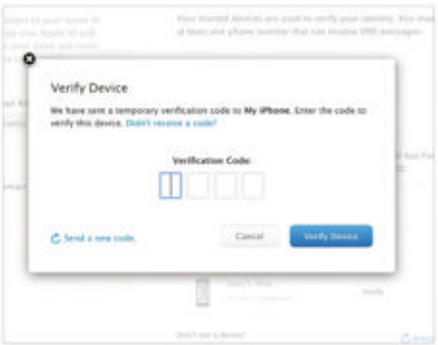
2 Read the disclaimers

Carefully read the information you're shown next about the implications of losing the information you're about to set up and be sure you're clear about what it means. Then, enter the phone number of your SMS-capable phone. Apple sends a temporary code to your phone by text.



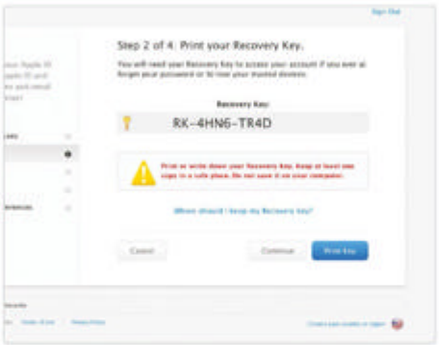
3 Link one or more phones or iOS devices

You can also verify your identity using any device that has Find My iPhone enabled, including any iOS device signed in with your Apple ID. Click on one of these to add it to the list of trusted devices. Click Refresh if you've recently got a new phone.



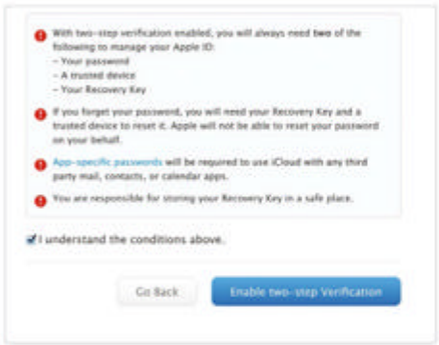
4 Choose a secondary device if you like

Here we've sent a secondary temporary code to an iPhone that's been registered with Find My iPhone (and so is linked to our Apple ID). After verification we'll be able to use it to enable extra security. This can also be done with an iPad or a compatible iPod touch.



5 View and save your Recovery Key

Click Continue. Apple generates a recovery key that can be used to unlock your account if you forget your password or lose your trusted device, though not simultaneously. Write this down and save it somewhere secure – preferably not on your computer!



6 Enable two-step authentication

Finally, you have to re-read the vital details about why you mustn't lose this data. When you've done this, click Enable to switch on two-step verification. You can turn it off again at any point, but you'll have to run through the steps of Apple's security clearance to do so.



Why you need an Apple TV

Apple calls it a hobby, but we reckon the Apple TV has evolved into an essential piece of kit for making the most of your media

First things first: what on earth is an Apple TV? Well, it's not a television set made by Apple, gorgeous though such a thing would doubtless be. In a nutshell, it's a media streamer: it enables you to play HD films and TV programs from iTunes, view photos and videos stored on a computer or iOS device, and even enjoy content from iCloud on your actual television. It supports AirPlay (see page 56) for connecting over Wi-Fi, so you can wirelessly stream content from your Mac or iOS device to your HDTV, and also (if your Mac is switched on) even access the Netflix service to rent TV shows on-demand directly from your TV.

When Apple first unveiled the Apple TV in 2006, it perplexed many people. When you plugged it into a TV, you could only stream media stored in iTunes from a computer on the same network or buy directly from the iTunes Store and download to its internal hard disk. Ironically, the one thing you couldn't use it for was traditional broadcast TV.

Then came a second-generation model, which removed the hard disk. Although there was 8GB of internal storage, it was even more clearly just intended for streaming media from the cloud or a local iTunes library.

And now we have the third-gen Apple TV, which is almost identical to the previous. It's capable of higher-resolution, 1080p ('Full HD') output, and it's driven by a single-core A5 processor and 512MB RAM, compared to 720p from the A4 processor and 256MB RAM of its predecessor. Apple no longer provides software updates for the older models.

If you're thinking this all sounds a bit dull and limited, we wouldn't blame you. So we're as surprised as anyone to find that we just love Apple's little black box. For us, the Apple TV is an essential part of our Apple ecosystem. Add an iOS device to the mix, and you have the potential to revolutionise your viewing habits.



Apple TV has ports for power, HDMI (to connect your TV), optical audio (for an amp) and Ethernet. The USB port is just for servicing.



The Apple TV comes with its own remote – but the Remote app is superior.

You can also watch a film as many times as you wish during the limited window – handy if you fall asleep halfway through while the rest of the family remains happily engrossed.

Bung in a Mac as well and you have the kind of media centre that TV addicts would have killed for only a few short years ago.

The question isn't why would you want one, but why wouldn't you?

Movies in minutes

The Apple TV, which costs just £59 in the UK, is easy to set up. It connects to your HDTV using an HDMI cable, optionally to an amplifier using an optical audio lead, and to your network over Wi-Fi (it has an Ethernet port as a fallback). The latest version of its software has a main menu that's vaguely iOS-like, presenting image-rich screens and straightforward access to media in the iTunes Store (including your past purchases) and from various other content providers.

First up is Movies, which is essentially a rental service. Not every film finds its way to the iTunes Store (which is where the Apple TV draws its content from), but the selection is improving all the time. Pricing isn't too bad either, starting at £3.49 for a film in standard definition, and £4.49 in high definition. Although you can perhaps find better deals if you shop around, the Apple TV wins out through immediacy: confirm a rental and it starts streaming immediately. Assuming you have a reasonable broadband connection, even HD movies should be ready to watch within a few minutes at most.

If something crops up and you no longer have time to sit in front of your TV, you can delay starting the film for up to 30 days, but once you press Play you've got 48 hours (24 in the USA) before the rental disappears. Note that you can also watch a film as many times as you wish during the limited window – handy if you fall asleep halfway through while the rest of the family remains happily engrossed.

The next option on Apple TV's main menu is TV Shows. Though Apple briefly flirted with TV show rentals in the USA, all shows are now only for purchase. You can buy shows by the episode or in seasons (and sometimes in multi-season bundles), and cost varies depending on the network, the show itself and whether or not you buy in SD or HD. Expect to pay up to £2.49 per HD episode, although it's usually cheaper per episode if you buy an entire series or season, and the iTunes Store also offers regular cut-price deals on older shows. In fact, if picture quality isn't particularly vital for you, you can switch the Video Resolution setting to Standard Definition in the iTunes Store part of Apple TV's settings to save a few quid.

Note that because the Apple TV has limited storage (it's essentially an 8GB iPod touch inside that requires an external display), you don't store purchases on the device itself. Instead, movies and TV shows are stored online and streamed on demand.

Beyond iTunes

The third option on the home screen is Music. This provides access to any music you've purchased from the iTunes Store in the past. It also works with iTunes Match, Apple's subscription-based service (£21.99 a year) that attempts to take the music collection stored on your computer, including tracks not bought from the iTunes Store, and save it online so it's all available to play back through Apple devices, without you having to sync myriad files between said devices. (See page 98 for details.)

This option works nicely if you're already using iTunes Match. If you're not, there are other ways to get your music – and, in fact, plenty of other non-iTunes-Store content – on to your Apple TV using Apple's AirPlay technology (see page 56).

The fourth of the main menu's options is Computers, and this enables you to connect your Apple TV to the iTunes library of any Mac or PC on your network that you've set to allow Home Sharing (File > Home Sharing > Turn On Home Sharing in iTunes).

Once it's connected, you get a menu on the Apple TV that enables you to access all relevant

GET MORE Mirror your Mac screen on your large-screen TV

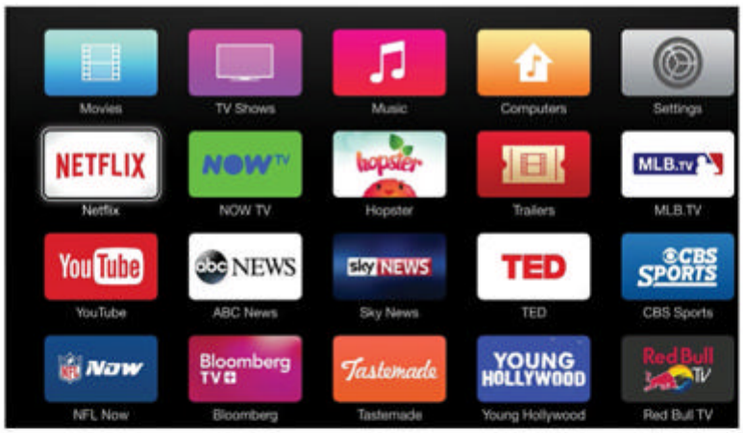
AirPlay used to be limited to streaming audio and video from iOS devices and from iTunes on a Mac or PC. However, in 2012 Apple extended the use of the technology with a new feature for the Mac: AirPlay Display. This can be used in two ways. First, it can mirror your Mac's desktop to an Apple TV. Second, and more intriguing, it enables your Mac to use the television that's connected to your Apple TV as a second display, extending the amount of workspace that's available for your apps.

In a home context, it's the mirroring option that is most useful. Although there are hundreds of thousands of apps available for iOS, certain types of content, including a number of television networks, aren't accessible on it. But if your Mac can play something, you can easily get it wirelessly to your television.

AirPlay support is also beneficial elsewhere: for educators it widens the scope for using an Apple TV in the classroom to show informative apps and video; and business people in meetings can wirelessly send content such as presentations from their Macs to conference room screens.



AirPlay lets you mirror a Mac's screen or extend the desktop to Apple TV.



Apple TV's main menu has more than a hint of iOS's Home screen about it, with rows of buttons across the screen.



The iTunes Store – and by extension, Apple TV – gives you access to an ever-growing range of movies and TV shows, with competitive prices for movie rentals.

content that's sitting in iTunes: music, movies, TV shows, podcasts and photos. Although this does have the downside of requiring your Mac or PC to be awake, the benefits are clear: you're not reliant on an internet connection to stream from the iTunes Store. If you've used the likes of HandBrake (a free download from handbrake.fr) or Media Converter to convert videos to an iOS-compatible format and stored the resulting files in iTunes, it enables you to access this footage. If you're not using iTunes Match, you can access your music, including tracks bought on CD and from other download stored, for free.

The remaining items on the Apple TV home screen link to specific online services, further expanding the range of content you can access via the device. Some of the options, such as YouTube and Vimeo, are free; others, such as Netflix, require a subscription.

You'll also find iCloud Photos on your Apple TV, which uses your Apple ID to access your iCloud Photo Library, a service you can configure from a Mac running OS X Yosemite or later, or a device running iOS 8 or later. Enable it on your iPhone, for instance, and every photo you take with that device will be uploaded to iCloud and viewable on your TV – if you fancy turning it into a massive photo frame.

App to the future

Although Remote is definitely the first app we recommend that new Apple TV owners download, it's far from the last, and that's because the App Store – in combination with

You'll also find iCloud Photos on your Apple TV, which uses your Apple ID to access your iCloud Photo Library… so you can turn your TV into a massive photo frame

the AirPlay feature – opens up a world of possibilities for the device. Apple's still fond of telling everyone "there's an app for that", and although most apps are designed for consuming or creating content on an iOS device, Apple's AirPlay technology (see page 56) can free video and audio from any one device and enable you to send it to another screen. In such situations, your iOS device becomes a kind of super-powered remote control, used for finding what you want to watch or hear. And the Apple TV becomes a receiver and conduit, sending the output to the television, rather than it remaining locked inside your device.

More content

In some cases, this can remedy shortcomings of the Apple TV itself. For example, although the Apple TV has a Radio option on its main menu, finding a station you want to listen to can be tedious. Instead, it makes more sense to grab a dedicated radio app such as TuneIn Radio. Use it to find a station you'd like to listen to (and store it as a favourite, too, if you like), start playing, and then send the audio stream to your TV by tapping the AirPlay button and selecting Apple TV as the destination.

Other apps provide plenty of content that you cannot access directly through the Apple TV itself. Some of these mirror traditional television in some way: for example, the BBC and Channel 4 provide AirPlay-compatible catch-up services in the form of BBC iPlayer and All 4, respectively. Channel 5's Demand 5 app lacks a built-in AirPlay button, but it redirects video to your Apple TV just fine if you swipe up from the bottom of an iOS device's screen to reveal Control Center, tap the AirPlay button there and then choose your Apple TV as the target.

The TVCatchup Live TV app provides access to whatever's showing right now on dozens of channels. And then there are plenty of specialist video apps, such as TED. So-called 'TED Talks' are brief and typically entertaining presentations by intelligent, articulate geniuses, mavericks and gurus. The app itself enables you to watch on your iOS device and save shows for later, but the

GET MORE Remote control

Whatever the type of content you're trying to access, one thing will soon become very clear: the remote control that Apple bundles with the Apple TV is dumbed down to the point of it being borderline useless in certain scenarios, and this is exacerbated by the nature of the Apple TV's linear-list menus. For basic tasks, the remote is okay. You can use it to play and pause, and it's fine for navigating the latest movies and grabbing one to rent. But it's very easy to lose your patience when entering search terms and passwords letter-by-letter, using the tiny directional arrow buttons and pressing the Select button to confirm every single character. If you've got a big music collection, scrolling down a massive list of artists or albums gets tiresome pretty quickly.

For such tasks, Apple offers the Remote app. A free download from the App Store, it has two primary functions. The first is turning any iOS device into a gesture-based touchscreen controller. You navigate menus by swiping and tapping, but more importantly, whenever you're confronted by a text field, the iOS keyboard pops up. Typing on an iOS device might be slower than using a traditional keyboard, but it's certainly a lot faster to use an iPad, iPhone or iPod touch to enter a password than navigating around Apple TV's on-screen keyboard using the remote control.

The Remote app has some further gestures, too. When a video is playing, you can flick left and right to rewind and fast-forward, or drag-hold to scrub through footage; if you flick down, you'll gain access to chapter markers and can then flick left or right to skip between chapters. Similarly, when playing music you can drag to scrub or flick to access the previous or next track.

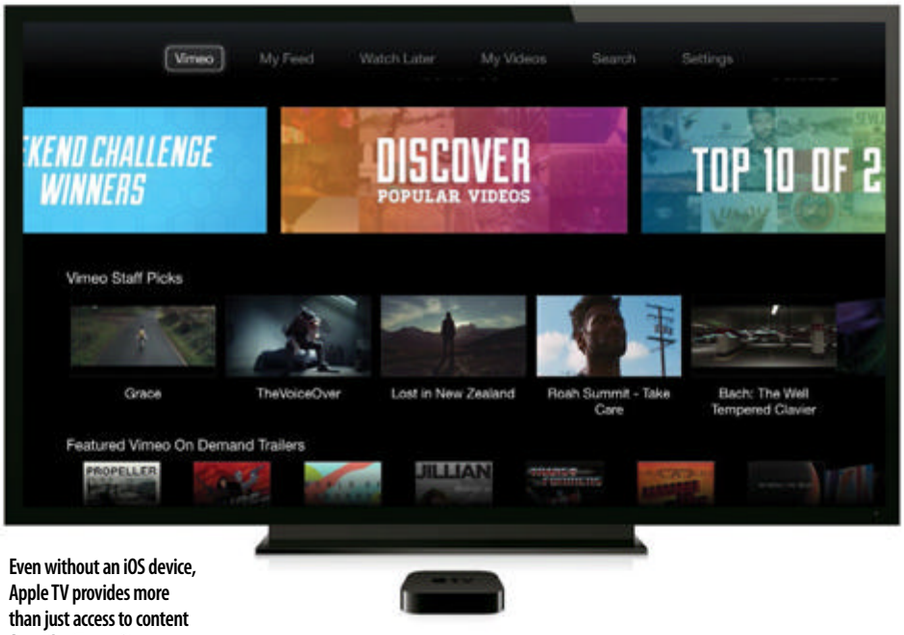
The other thing the Remote app is great for is navigating the media you have stored in iTunes. On the iPad in particular, Remote rather resembles a miniature version of Apple's desktop jukebox, and enables you to rapidly search a collection to find an album or video you'd like to listen to or watch. You don't have to scroll down a massive list of artists (which can take some time), click an album, then click again to play a track; instead, you can slide your finger down the side of the iOS device's screen to quickly advance through your library with little effort, tap an album's artwork, and then choose a track. For more about Remote, see page 58.



Using the Apple TV interface to control music content being streamed from your Mac can be a painful procedure. Instead, it's far easier to control the volume or skip tracks using the Remote iOS app.



Stream iTunes content from your Mac to Apple TV.



Even without an iOS device, Apple TV provides more than just access to content from the iTunes Store.

built-in AirPlay support provides the means to get the videos to your Apple TV and so to your television and accompanying audio system.

Work with it

Some apps go further into the realm of taking something staggeringly complicated and making it surprisingly simple. Air Video and StreamToMe both require you to install a piece of server software on your Mac, and then select some folders containing media. When the related iOS app is installed on your iPhone, iPad or iPod touch, you can access the specified folders on your Mac, select a video, and have it stream over Wi-Fi to your device. This can then be sent on to your Apple TV.

If the format of the video is not compatible with iOS, the server software will convert it on the fly. And so if you've got a bunch of AVI files, say, sitting on a hard drive, these apps provide the means to view them on your TV, without syncing, without converting, and without moving the files anywhere.

Outside the area of entertainment, Apple TV offers further scope, with many apps enabling you to send your work to the device. For example, Keynote presentations can be sent to a television, which might not be much use in the typical home but has clear benefits in the classroom or in business meeting rooms. You can even extend a Mac's desktop onto whatever television the Apple TV is connected to.

Some apps go further into the realm of taking something staggeringly complicated and making it surprisingly simple

GET MORE
Big-screen iOS gaming

One of the most exciting features of AirPlay is the ability to mirror games. Depending on how they've been configured, some games enable you to use your iOS device as a controller while displaying the action on the big screen via your Apple TV. Others provide extra information on your iOS device's screen – in the case of Real Racing 2 HD, for example, there's a map of the circuit and a timer that remain on-screen during the race.

Network latency can cause glitches or annoying lag when you play this way, but there are some ways to minimise it. Placing your router close to where you're playing can help ensure a strong Wi-Fi signal, and disabling Bluetooth can reduce interference with your network. Other electrical equipment can interfere with a Wi-Fi network that is set up to broadcast in the 2.4GHz frequency band.

If the signal keeps dropping, you can try switching the router to the 'wide channel' 40MHz frequency, which is usually faster than 20MHz. If it's already using that, the problem might be congestion caused by other networks nearby that are broadcasting on neighbouring channels, and you may find that the 20MHz band, though slower, might be less crowded.



Future

iPad User Magazine

BEST APPS FOR SHARING

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Mirror the iPad's screen

Displaying your iPad screen on a TV makes work and play more fun

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
iPad 2 or later, iOS 8, an Apple TV (now just £59 from the Apple Store)

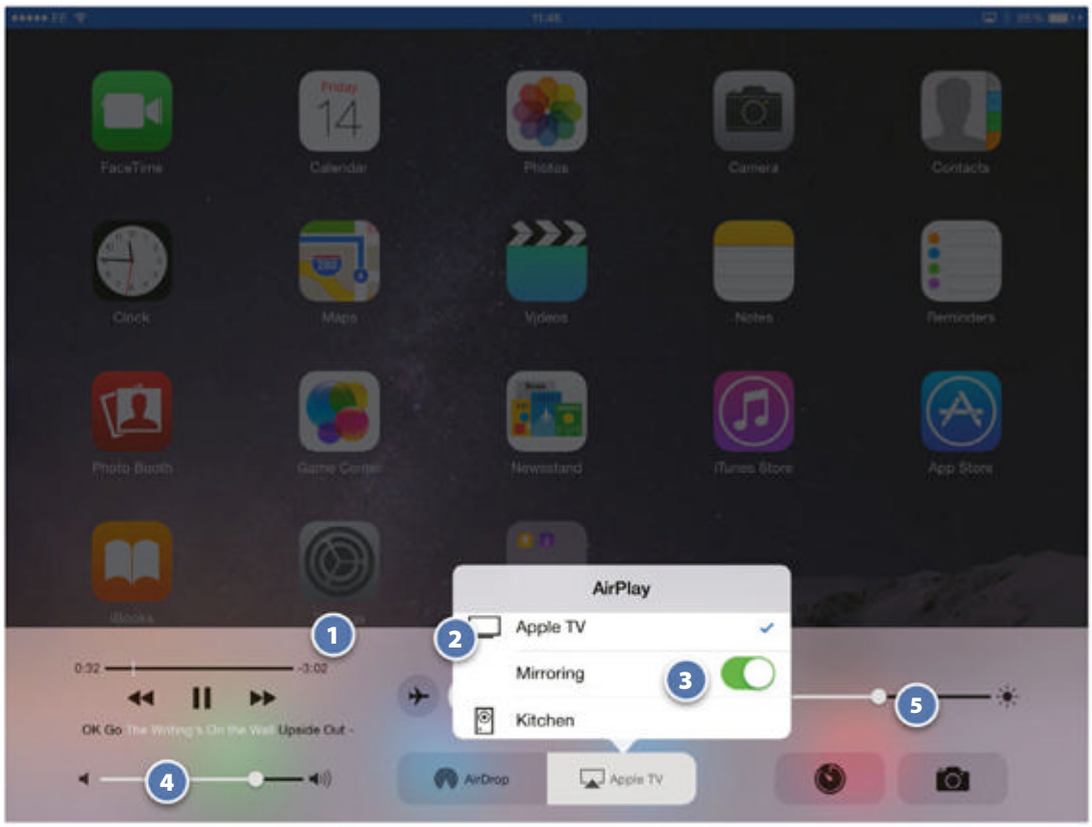
One clever feature to check out if you have both an iPad and Apple TV on the same network is the option of mirroring the iPad's screen. What is mirroring? It means that whatever is currently appearing on your iPad's screen is automatically duplicated on your television's screen.

You can use mirroring to display apps, web pages, games and just about anything that appears on the iPad screen. One area where mirroring is really useful is when giving presentations. While it's perfectly possible to hook up your iPad to a projector, many people prefer to use high-definition televisions instead. The visual performance of a large high-definition television is better than a projector, and it's usually easier to set up and use.

The only time that mirroring won't work is when an app intentionally doesn't support AirPlay (such as the Sky Go app). You can't get around this block by using mirroring, unfortunately. However, there are some instances where apps are designed specifically with mirroring in mind, and use both displays independently. Apple's Keynote is one such example; open Control Centre and choose your Apple TV, opt to mirror the iPad's display and the iPad's own screen will show notes and a timer, whereas the television shows the presentation. When designing a presentation in Keynote, make sure you choose a template that's appropriate to the aspect ratio of the television that you'll use to deliver it – widescreen (16:9) and old-fashioned 4:3 options are available.

Presentations aren't the only things you can show on a TV. You might work on a business forecast spreadsheet with your team, share a task list as you assign jobs to individuals, or keep track of people's suggestions during a brainstorming session using an app such as Mindjet Maps, which is free.

VISUAL GUIDE | SETTING UP AIRPLAY WITH MIRRORING



Control Centre

1 It's easy to access AirPlay from the Control Centre. Assuming AirPlay has been turned on in the Apple TV's settings, and the iPad and Apple TV are connected to the same network, you'll see the AirPlay icon in the middle of the Control Centre screen.

Apple TV

2 If you tap on the AirPlay menu, it will show you all the available devices that you have on your network. Choose the Apple TV to mirror your display.

Mirroring

3 You can now swipe the Mirroring toggle to On. By doing this, it will stream everything from your iPad display to the Apple TV, and not just video and music.

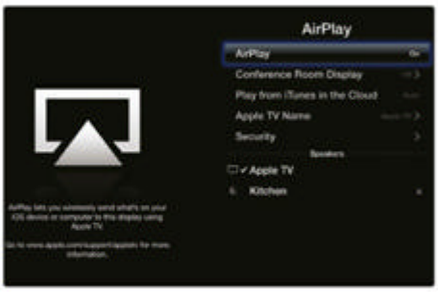
Volume

4 Audio from the iPad and any apps is also streamed to the Apple TV. Unlike video streaming you can actually adjust the volume from your iPad, using this bar.

Brightness

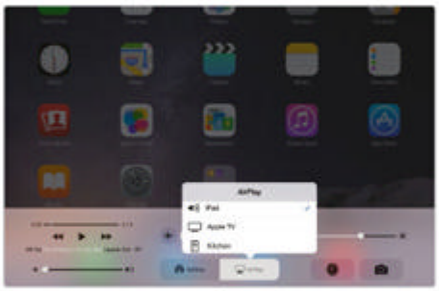
5 It's wise to take note that the brightness controls do not affect the Apple TV display – the slider just affects the brightness settings on the iPad itself.

HOW TO | TURN ON AIRPLAY MIRRORING FOR AN APPLE TV



1 AirPlay on Apple TV

First off, you need to ensure that AirPlay is turned on in the Apple TV. Do this via Settings > AirPlay > On. Also turn on Home Sharing, which you'll find under Computers (using the same password as on other devices). It's handy for streaming media.



2 Switch to the Apple TV

Ensure that your iPad and Apple TV are both connected to the same network. Now swipe up from the bottom of the screen to reveal Control Centre. Tap the AirPlay icon, which you'll find next to the AirDrop icon. Choose your Apple TV from the list of devices.



3 Turn on Mirroring

You'll see the Mirroring option appear underneath. Tap it to turn it on and you should see the contents of your iPad's screen on your television. Note the iPad menu bar at the top of the screen flashes blue briefly to let you know that Mirroring is switched on.



4 View on the television

Everything you view on the iPad is displayed on the television screen now that Mirroring is switched on. Carry on using your iPad as normal and everything will appear on the big screen (but the display may look blurry compared to the iPad's high-definition display).



5 Open apps

Having the contents of your iPad view displayed on the big screen is a great way to work collaboratively with other people in apps that support AirPlay Mirroring, like Pages or iThoughts, because everyone can see the screen and chip in with ideas.



6 Presentations

If you happen to be giving a Keynote presentation, for example, turn Mirroring on and tap the Play button in the top-right corner of the screen. Keynote displays your slides on the main screen, while presenter notes and a timer to pace yourself are shown on the iPad.

Fixing lag problems

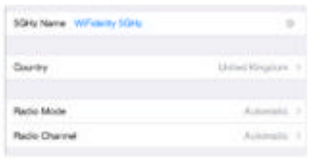
We've learned that mirroring is very easy to set up, but because it works completely wirelessly there's a chance you might still experience slight delays (known as 'lag') or stuttering if your network isn't working fast enough. Fortunately there are a few quick things to check that will help to get things running smoothly.

First, check that all devices are connected to the same network, and ideally through the same wireless router. If your network has more than one wireless access point, it's best to ensure the iPad and Apple TV are using the same one.

It's also a good idea to use a faster Wi-Fi 802.11n or 80211.ac router, if possible. This is one reason that an AirPort Extreme or Time Capsule is a good investment; they have dual aerials for both the slower G devices and the newer N and AC devices, which support faster connections.

To enable your iPad to connect to the faster 5GHz network broadcast by those devices, download the AirPort Utility app. In it, tap the device, enter its admin password and tap Edit. Now tap Advanced > Wi-Fi Settings and give the 5GHz network a name (maybe the same as its 2.4GHz network but with '5GHz' appended).

Tap Done > Update to apply the settings. Ensure your iPad connects to the 5GHz network and things should run better.



Too many devices operating in the same wireless channel can cause lag: override the settings and choose a different channel.



With an AirPort Extreme Base Station or Time Capsule, use the faster 5GHz channel.

Stream using AirServer

Play games head-to-head, mirror and even record to your Mac…

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
Mac, iPad, wireless network, AirServer apps for iOS and OS X

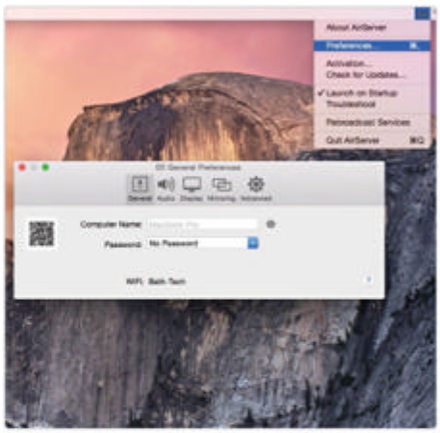
You might know about using AirPlay to beam the screen from your iPad or iPhone to an Apple TV, or even stream video or the whole screen from your Mac to your Apple TV. But did you know that you can beam from iOS devices to your Mac?

AirServer ($14.99) is a clever app that runs on your Mac and accepts an incoming AirPlay signal, giving you a selection of quality levels and other options. There are many reasons to do this, such as demonstrating something from an iPad on a much bigger Mac screen, or indeed beaming to a Mac connected to a projector. AirServer also lets you beam more than one iOS device to a Mac – up to 16 in fact – and share the screen, so it's great for head-to-head gaming. You can even record the input on the Mac and adjust brightness, colour and more.



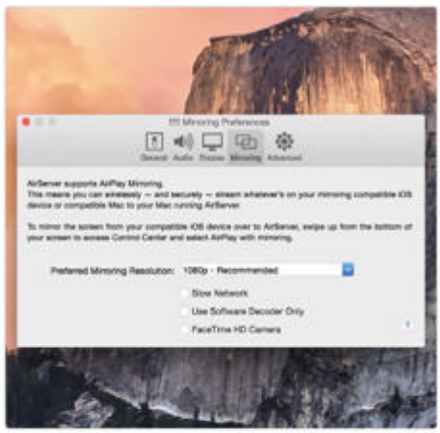
Unlock the power of AirPlay by streaming video or audio from your iPad to your Mac running AirServer.

HOW TO | INSTALL AND CONFIGURE AIRSERVER ON YOUR MAC



1 Install the app

AirServer runs on your Mac to enable it to receive a signal from your iPad and other iOS devices. Go to airserver.com and either buy the app or install the demo, then click on its menu bar icon and select the Preferences tab. In the General tab you can password-protect the connection if you like and assign it a name on the network.



2 Set up audio and video

The Audio tab lets you choose how to output sound through the Mac, and the Display tab lets you select which display to use for the incoming signal. If you have a single screen, you will see only one option here. In the Mirroring tab you can choose a preferred incoming resolution. Switch this to a lower value if you experience lag or choppiness during mirroring.



3 Stream from an iPad

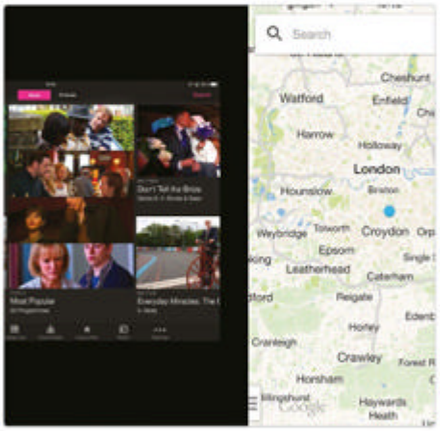
Your Mac should now be broadcasting to the network as an AirPlay destination. On your iPad, swipe Control Centre up to see the AirPlay options and you should see the computer's name appear as a new option. Select it and any video or audio will now stream to the Mac. Select Mirroring and the screen will continue to be sent to the Mac, even if you exit your app.

HOW TO | STREAM ONE OR MORE DEVICES TO YOUR MAC



1 Stream an iPad

With AirServer set up on your Mac as described opposite, you can send any audio or video from your iPad to the computer screen using the AirPlay control on your iPad. You can either have it fullscreen on the Mac or displayed in a window. This window can be resized by dragging its corners so you can show the content of the iPad's screen at any size you like.



2 Add a second device

If you have more than one iOS device you can send them both to the Mac's screen at the same time – AirServer will detect this and split the screen. This is great for head-to-head gaming or displaying pictures from multiple devices. Simply mirror each device to the same Mac over AirPlay and this will be taken care of automatically by the software.



3 Multiple devices

If you mirror or send more than one stream to a Mac, AirServer places the windows side by side and accounts for different aspect ratios. You can make either take over the whole screen or close it by clicking the arrows or X at the top corners. Mirroring several devices is a way to keep an eye on different apps, each one updating live, and all in a single location.

HOW TO | PROCESS AND RECORD YOUR iPAD'S OUTPUT



1 Fine-tune the visuals

Mirror an iPad to your Mac as outlined above but this time, move the mouse over the mirrored area on the Mac to reveal the control bar. Click on the settings icon to reveal some real-time visual effects and processing that the app can perform. You can dial in some sharpening, brightness, contrast and even flip the screen horizontally or vertically if you like.



2 Record the stream

Next to the settings icon is a Record icon; if you press this, the software will capture the streamed signal. This is excellent for recording gameplay. You might not even watch on the Mac's screen as you play, but you know it is being recorded. If you are mirroring two or more devices you can record them both, so it's great for capturing your performances.



3 Save the recording

When you have finished recording, press the Record button again to stop and you will be prompted to save the recording. Enter a file name and a location on your hard drive and from the Format menu you can choose H.264 for a smaller file size, or Apple ProRes to keep a larger but higher quality file. You can always compress it later if you want to send it on.

Access iCloud via the web

Go to icloud.com to read mail, work on docs, find a lost phone and more

SKILL LEVEL
Anyone can do it

IT WILL TAKE
20 minutes

YOU'LL NEED
Internet connection, compatible web browser, Apple ID

Why would you want to access iCloud through your web browser? After all, doesn't iCloud integrate with apps for your Mac, iPhone and iPad, and can't you access your iCloud Drive directly from a Finder window's sidebar?

The answer is that having access to your iCloud data via the web frees you from the constraints of being tied to your devices, giving you access to your email, calendar and even your iWork documents from any computer with an internet connection and a modern browser, be it a Mac or a PC powered by Windows or Linux.

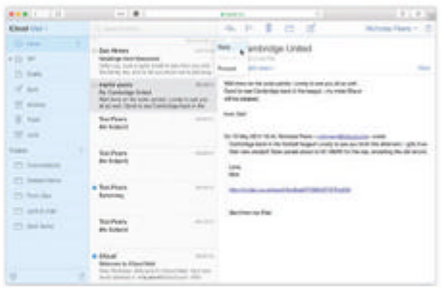
Accessing your data and documents through the icloud.com website is a simple affair. Once logged in, you're presented with a host of icons that point to different parts of the iCloud service. Click one and not only do you get access to your data, you're also treated to a fully formed web app that gives you most – if not always all – of the functionality found in the eponymous Mac or iOS app.



Accessing icloud.com in a web browser can be useful in helping you track down a lost iPhone, iPad or Mac.

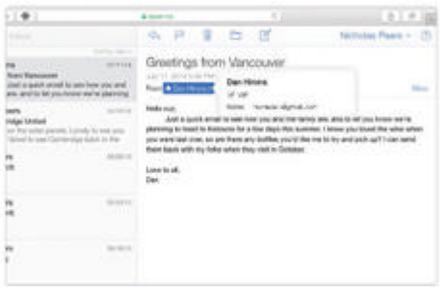
Before accessing icloud.com through another computer, make sure you take steps to check it's secure. Avoid using public computers like those in internet cafés or hotel lobbies unless you're confident they're not riddled with malware – shy away in particular from PCs running old versions of Windows such as XP or those that don't clearly show the presence of reputable security software installed. Even if the computer checks out, it's worth remembering to make sure you sign out of iCloud after you've finished using it – you'll find this option by clicking your name in the top-right corner of the site.

HOW TO | MANAGE MAIL THROUGH iCLOUD



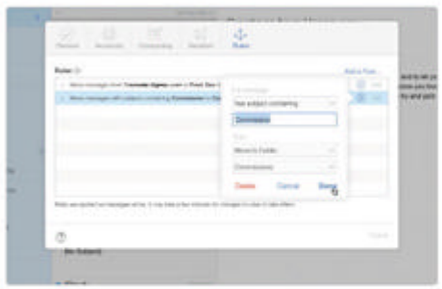
1 Log in, access mail

Go to icloud.com in your web browser, and log in. Click the Mail icon to be presented with your inbox, with the latest message at the top of the list by default. After clicking a message to select it, you can use the buttons above the message to reply to it (or forward it), mark the message unread or junk, bin it, move it to a folder or compose a new message from scratch. When you compose (or reply to) an email, it'll appear in its own window.



2 Organise your mail

Mail has all the tools you'd expect for organising your mail in the left-hand pane – you can clear your inbox by archiving older messages, mark unwanted mail as junk and organise mail into different folders according to subject. Set up favourite contacts as VIPs (click on their name in the From box of a message, tick the VIP box and then Save) and you can expand the VIPs mailbox to select an individual and see only messages from them.



3 Tweak preferences

Click the Settings button (the cog) at the bottom-left corner of the site and choose Rules to set automatic rules for filtering mail according to your criteria. Choose Preferences to set up viewing preferences, a holiday message, your email signature, and up to three iCloud email aliases to help separate your email into different mailboxes. The Settings button also reveals options for emptying the trash, deleting the selected folder and printing the current email.

VISUAL GUIDE | USING iCLOUD.COM



Mail

1 The Mail icon gives you access to your icloud.com email account only. It works much like other webmail services, offering a three-paned view with your account folders on the left, a list of messages in the middle and the contents of the currently selected message in the right-hand pane – see the opposite page for some pointers.

Contacts

2 This includes only contacts saved in the Contacts app on your Mac or iOS device (or the web app directly); you can't, for example, access your Gmail, Yahoo or Microsoft contacts. You can, however, easily move contacts between different groups – simply drag a name on to the group you wish to add it to. Click the Settings cog at the bottom-left of the Contacts web app and choose Preferences to change the Address Layout format to United Kingdom, so that phone numbers are displayed according to UK conventions.

Calendar

3 The Calendar web app also works only with iCloud calendars, not other services such as Gmail, but it does support multiple calendars, such as work and home, and allows you to manage existing events as well as create new ones – double-click on the calendar where you'd like the event to occur, then fill in the details; you can add invitees and attach files. Again, the default settings are US-centric, so click the Settings cog and choose Preferences to make the date format DD/MM/YYYY for the UK.

Photos

4 If you've activated iCloud Photo Library (see page 114), you can view all the photos and videos you've uploaded from your iOS device or Mac, as well as add to and delete them. You can also share them with others via email, but note that albums shared via iCloud Photo Sharing are separate and can't be viewed or managed here.

iCloud Drive

5 Access the documents stored in your iCloud Drive. You can upload and download files, create folders, rename files and folders, and open files in the relevant iWork web app – but note that you can download files here only in their native formats. If you first launch the Pages, Numbers or Keynote web app, you can opt to download files in different formats, including PDF or the relevant Microsoft Office file format – see overleaf.

Find My iPhone

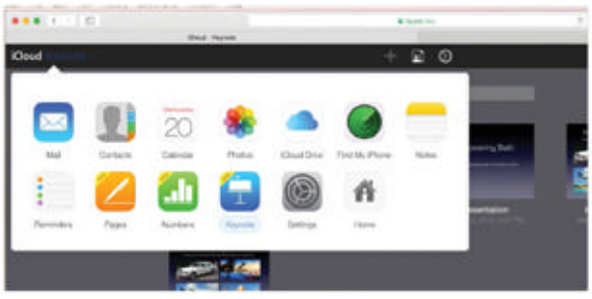
6 This is potentially one of the most valuable parts of iCloud. Enable Find My iPhone/iPad under Settings > iCloud on your iOS device and, if it's lost or stolen, you'll be able to log into icloud.com using a web browser and locate the device on a map, provided it's switched on and connected to the internet. (If it's not but has been in the past 24 hours, you'll see its last known location.) If you've set up Family Sharing (see page 67), your family members' iOS devices and Macs also appear under their names. Select a device from the drop-down menu in the middle of the top bar, then click Play Sound to help you locate it. Click Lost Mode and you can display a message and contact number on its screen, so that whoever finds it can get in touch with you. If you've given up hope of recovering it, you can click Erase to wipe it clean – but note that Find My iPhone then won't be able to see it any more, and it still can't be reactivated without your login.

Notes and Reminders

7 These two apps sync with any notes you've created and any reminders you've set on your Mac or iOS device. You can review, edit and delete content as well as add new stuff. Handily, you can email notes you make to others (or even yourself).

iWork apps

8 A major benefit of icloud.com is the web-based versions of Pages, Numbers and Keynote. They're not quite as a fully functional as the Mac or iOS apps, but they allow you to view, edit, create and even collaborate on documents, even on a Windows PC. Find out more overleaf.



Click the drop-down menu at top-left for easy navigation between the iCloud services.



SYNCING PROBLEMS?

If you make any changes to documents and data in icloud.com, these should all automatically sync to your iOS devices and Macs (though there may be a slight lag). If you find that changes aren't being synced, first go to System Preferences > iCloud, ensure that iCloud Drive is ticked, then click the Options button next to this and verify that all the relevant apps are enabled. Visit support.apple.com/kb/TS3991 for further troubleshooting steps. It's also worth visiting apple.com/support/systemstatus to check that Apple's services are all working.



Work entirely online with iWork for iCloud. In Keynote you can add slides, edit them and even run presentations within your browser by clicking the Play button.

Using iWork for iCloud

Take your work into the cloud and free your documents from the desktop

SKILL LEVEL
Anyone can do it

IT WILL TAKE
25 minutes

YOU'LL NEED
iCloud account, compatible browser (Safari 6.0.3 or newer for OS X, Internet Explorer 10 or newer for Windows, Google Chrome 27.0.1 or newer for either)

When Apple released OS X 10.8 Mountain Lion in July 2012, it introduced some clever new features to help you work more quickly and efficiently. Foremost among these was Documents in the Cloud, which makes it simple to keep documents in sync on your Macs and iOS devices. Apple apps – including TextEdit, Preview, Pages, Numbers and Keynote – have support for this feature built-in; a few third-party apps, such as iA Writer and Pixelmator, also support it.

Assuming you've signed into iCloud, the idea is that whenever you create or modify a document and save it (or Auto Save saves it for you), it's automatically and seamlessly saved in the cloud. The big benefit of this is that because your document is in the cloud, you can then open it using compatible apps on any computer or iOS device linked to the same iCloud account – save a Numbers spreadsheet to the cloud from your Mac, for example, and you can later open and edit it using the Numbers app on your iPhone or iPad wherever you may be. When you're finished, the latest version is saved in the cloud again, so you can open this in turn using the Mac version of the app, or reopen it on your iOS device, at any time. It's the content that counts, not which platform or device you happen to be using at any point.

Now Apple has taken iWork to another level with iWork for iCloud, a suite of web-based apps that enables you to create and edit iWork documents online, using any compatible browser (the latest versions of Safari on a Mac, Internet Explorer on a Windows PC, or Chrome on either). You don't have to be using your own computer. Most importantly, other than a web browser, nothing else needs to be installed to run the web apps.

Simply visit icloud.com, sign in using your Apple ID and password, and you'll see the usual iCloud Home screen. Here, as we've already mentioned, you can access your iCloud email account, notes, contacts, calendars and reminders, all synced across all your iOS devices and computers linked to the same Apple ID. You'll also see icons for Apple's iWork apps: Pages, Numbers and Keynote. In the past, the equivalents of these icons simply worked as a portal for Documents in the

QUICK LOOK | USING PAGES FOR iCLOUD

View, Undo & Redo

1 Zoom in and out, or choose Fit Width or Fit Page to fit the document to the Safari window. Undo and Redo work as you expect.

Insert text, shapes, images and tables

2 New documents come with placeholders you can edit, or you can insert text, images, shapes and tables using these buttons.

Share & Tools

3 Share a link for collaborative online working. Tools include spell check, find and replace, send a copy via email, print and more.

Format panel

4 Adjust text, shapes, images or alignment, depending on what's selected in the document.



Cloud – in other words, the iCloud site gave you access to iWork documents you had stored in the cloud, so that you could perform a few basic tasks – retrieve them, duplicate them, rename them and so on. Usefully, you could also convert them to PDF or Microsoft Office formats as part of the download process. (This feature is still available, too.) To edit them, however, you needed to have the appropriate iWork app installed on your computer or iOS device.

Moving into the cloud

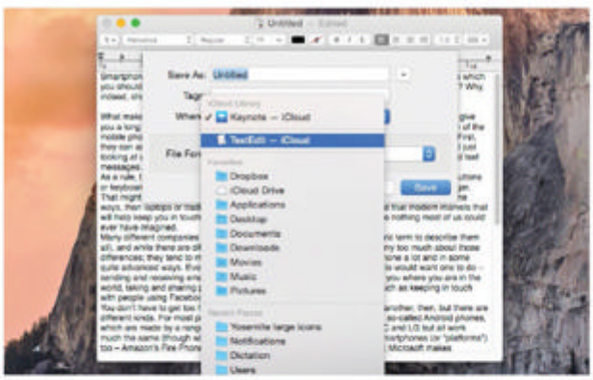
Now these three icons do much more. Each launches a web app, so that you can create and edit your documents, spreadsheets and presentations within your browser, even if you don't have the native iWork apps installed.

iWork for iCloud is a formidable online recreation of the three iWork apps that enables you to view, edit, export and share all of your documents using any computer and a compatible browser. As we've mentioned, it requires the latest version of Safari, Google Chrome or Internet Explorer – see the full system requirements at support.apple.com/kb/HT4759. (In our testing we found that Firefox and other browsers will work, as will both Chrome and Chromium on computers running Linux, but you'll be warned that they're not 'fully supported' and you may or may not experience glitches and unexpected behaviour.) Note that you can access iWork for iCloud using an OS X, Windows or Linux computer; if you try to access it via an iOS device you'll be directed to instructions on setting up iCloud on your device. When using an iOS device, access to your documents takes place only in the native iWork apps on your device (which are provided free with new iOS devices), but when they're saved (which happens automatically in iOS) your newly-edited documents will be seamlessly synced back to the cloud again when you're online.

The iWork web apps have a single toolbar at the top of the screen, with buttons that reveal further options. The sidebar on the right displays tools for formatting objects and text.

When you launch one of the web apps you first see its Document Manager. This enables you to create a new document or open an existing one (just double-click on the one you want). Right-click on an existing document, or click on it to select it and then click the cog icon (in the toolbar at the top of the app), for more options such as deleting or sharing the document – more about this shortly. Click a document's name to change it.

You can also upload documents simply by dragging and dropping them into the window from your desktop. You normally don't need to download documents – remember, you can access everything in the site from anywhere – but if you wish to do so, a file can be downloaded in iWork, PDF or Microsoft Office format. Any necessary conversion is automatic. As you might expect, the conversion process works on upload too, and is usually pretty flawless



In addition to the iWork apps, other Apple apps are integrated with iCloud and make it easy to save your files in the cloud and open them from there, just as if they were on your hard drive.

FEATURE SUPPORT

Bear in mind that the OS X version of iWork supports more fonts than the iOS version, and advanced effects may not work in iOS, such as text ligatures, vertical text and so on. Remember, too, some features aren't supported in iWork for iCloud. Don't expect everything to look exactly the same or work perfectly on all platforms!

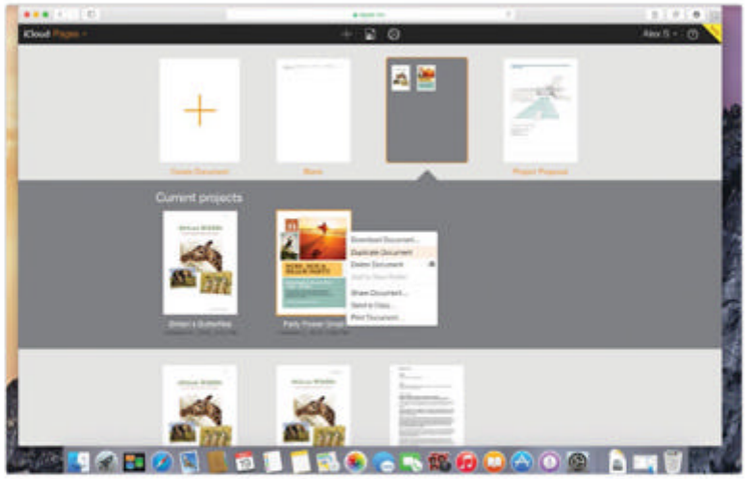
(though you should check carefully if your documents use fancy features that might not have direct equivalents in other apps, such as Sparklines in Excel spreadsheets or embedded SmartArt in PowerPoint presentations).

Working in the cloud

Opening or creating a document in iWork for iCloud opens a new browser tab or window for that document. Editing the document's content is much the same as in the OS X and iOS apps. The toolbar at the top of the document (see annotated image on previous page) is similar for all three iWork for iCloud apps, so once you've learnt the basics of one app you'll find it relatively easy to edit in all three. At the left is a control to hide or show the format panel or find and replace text. Next is the zoom control; click this to choose different levels of zoom. Next to this are buttons for Undo and Redo, then buttons to add Text, Shape and Image boxes, and now Tables and Charts in all three apps, too.

Click the question mark at the far right to get more information, access the help pages or send feedback to Apple. Click the spanner icon for options to show or hide guides, check spelling, password-protect the document or print it. You can also send a copy of it via email, provided you've set up iCloud Mail; you can then choose the format in which you want the document to be sent – iWork, PDF or Microsoft Office.

The most exciting option is Share. Click the icon that shows an arrow emerging from a square (or right-click on a file in the Document Manager and select Share Document) and a unique link is generated, which you can then send to other people (directly via email, or by copying and pasting the link into a tweet, a blog or whatever you wish). Anyone who has this link can then access the document and edit it (or just view it, if you prefer) on the icloud.com website – they don't need the iWork apps or even an iCloud account, just a compatible browser.



You can create folders by dragging one document onto another, iOS-style. Right-click on a document and you can duplicate, delete or share it, or download it in your choice of iWork, PDF or Microsoft Office format.

This is fantastic for collaborative projects. Several people can even work on the same document at the same time; edits appear in real time, with different coloured cursors and objects indicating what each person is currently editing. As the 'owner' of a document, you can decide to stop sharing it, but everyone's edits carry the same weight – all are saved automatically, and the current state of the document is synced to all your linked computers and devices.

Head in the clouds

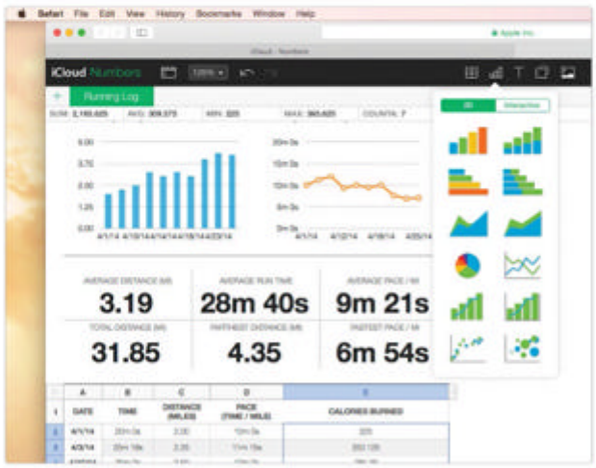
Working in this way could take some getting used to (and you might want to keep a backup of the original file somewhere safe, just in case your collaborators get carried away). There are some other things to note as well. The principal one is that you don't ever have to save a file – it's automatically saved online as you edit it, so it's always up to date. Hence, once you've finished working on a document, don't spend time looking for the Save button – just close the browser window. This takes a leap of faith the first few times, but you soon get used to it, especially if you're accustomed to working on iOS devices, where apps also save automatically.

There are also plenty of advantages. For a start, if you need to get working but find yourself away from the office, you can pick up any computer with a compatible browser and start working on your documents then and there. Should you have a problem with your computer or hard drive while you're working on a file, it's not really a problem at all because you can start working on any other device and carry on without pausing. (You'll still need to get your computer fixed, though…)

At this point, iWork for iCloud is still in beta, so we'd advise a certain amount of caution before making it your primary work tool. Some features are not yet supported, such as build effects in Keynote, but others are steadily being added, such as tables and inline images in Pages and chart creation and editing in Numbers. That said, however, any unsupported items in a document are preserved intact and can be edited again when you open the document in the appropriate iOS or OS X app. Apple is also adding more features as time goes by, and promises additional useful functions such as document version history.

Of course, iWork for iCloud is not the only suite of web apps available. Microsoft's OneDrive (previously known as Microsoft SkyDrive) also offers access to cut-down versions of its Office apps through a browser. However, iWork for iCloud does offer seamless integration with your iOS as well as OS X apps, effortless format conversion, and an exciting new way of working collaboratively with others, no matter what apps or computers they may be using. It really is a new way to work!

In addition to adding tables and editing cells in Numbers for iCloud, you can create a chart from a selected range of data, in a choice of attractive chart styles.

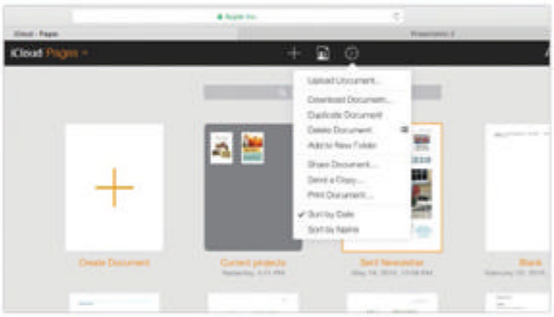


HOW TO | USE iWORK FOR iCLOUD



1 The Document Manager

Go to icloud.com on your computer and sign in with your Apple ID. Click one of the iWork app icons to open the Document Manager window for that app. Click the top-left item to create a new document, double-click an existing document to open it, or right-click one for further options.



2 Management options

To create a folder, drag one document onto another. To rename a file or folder, click its name. To upload a file, drag it into the window, or click the cog icon in the middle of the top bar and select Upload. Click the icon to the left of this for a list of files that others have shared with you (see step 5).

ALL IN ORDER

Because iWork for iCloud is an online service, it's dependent on Apple's servers being up and running. iCloud is a very reliable service but you can check that all is well at apple.com/support/systemstatus. If something isn't working properly it's a good idea to check iWork's status there.



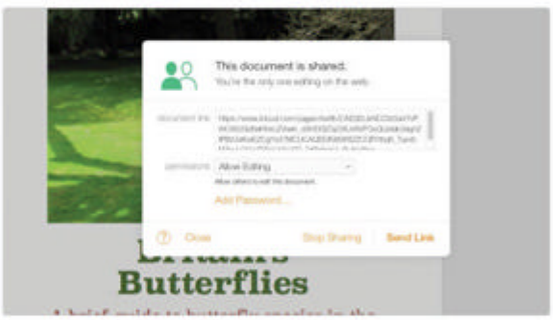
3 Need help?

Click the question mark at top-right corner. In an app's Document Manager, floating yellow labels ('Coaching Tips') appear; use the same icon to hide them or select Get Help to open a floating help window. Browse by topic on the left, or click the magnifying glass (top-right) to search for something.



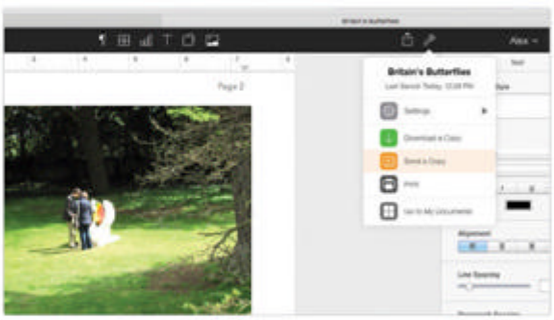
4 Working with a document

When you create or open a document it appears in a new tab or window. Click on items in the document to edit them. Use the format panel on the right to change the font, style or size of text. Click an image to move or resize it; double-click it to adjust its crop or zoom within the box.



5 Saving and sharing

Add new text, shapes, images and tables using the buttons in the centre of the toolbar. Changes are saved as you go, iOS-style; when you're finished, just close the tab. Want others to view or even edit the document? Click the Share icon near the top-right corner, and send them the link.



6 Sending and downloading

Prefer to email someone a copy of the file as it is? Click the spanner icon, select Send a Copy, then pick a file format – iWork, Microsoft Office or PDF – and it's converted for you. If you're not using icloud.com's Mail, you can download the file in the same choice of formats and send it using another app.

KEEPING IN SYNC

Changes you make using the iCloud apps are automatically saved, provided the computer from which you make changes is online. If the connection is dropped for any reason, you'll get an alert warning you that you need to connect for your changes to be saved.



Design with Pages online

Make a stylish newsletter with this powerful yet easy-to-use web app

SKILL LEVEL
Anyone can do it

IT WILL TAKE
45 minutes

YOU'LL NEED
Compatible web browser, internet connection, Apple ID

Pages is Apple's own word processing app, and it's designed to help everyone create great-looking documents. With Pages for iCloud, Apple has taken the app's functionality further to create an online word processor that's just as capable of producing visually pleasing documents. There's an impressive set of templates to help you start, and using the built-in styles ensures that the end result looks really slick and professional. However, what makes this app really convenient is that you can work on your documents anywhere – and share the workload using collaborative tools, too. Everything is saved automatically as you work, so you can tinker during your lunch hour at work, say, and then pick up where you left off when you get home.

In this tutorial we're going to create a family newsletter from a template. This will use images and a headline, but the techniques here can easily be used to create other documents too. So let's get started with Pages for iCloud…

Using templates



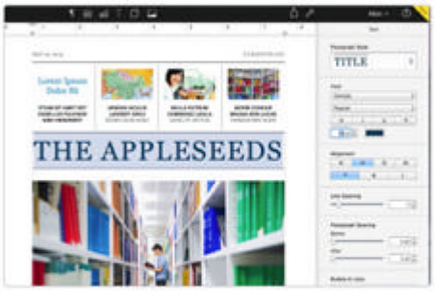
Pages for iCloud offers a range of templates for various kinds of documents, including letters, CVs, projects, posters, and more. Starting with a template, like the newsletter one we use here, saves you having to design your document from scratch – all the elements you'd expect to find in that particular kind of document are in place, so all you need to do is click on each one and replace the placeholder content with your own. You can, of course, always modify elements (resize or move them, for example), delete them or add completely new ones of your own.

HOW TO | CREATE AND SHARE DOCUMENTS IN PAGES FOR iCLOUD



1 Select a template

On your computer, using a compatible browser, visit icloud.com and enter your Apple ID and password. Click the Pages app icon, then click Create Document. In the template chooser, scroll down to find newsletters and select Serif Newsletter. It will open in a new tab or window.



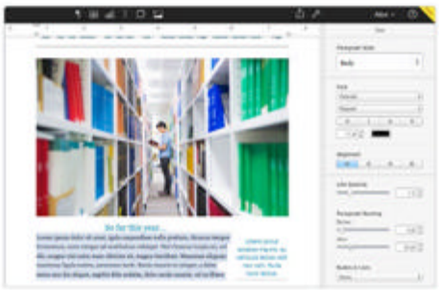
2 Add your text

The template has a suitable background, placeholder images and dummy text. Click the header and the text is selected, so you can start typing in your own. To resize it to fit, hit ⌘+A to select it all, and click the down arrow next to the font size in the format panel to reduce it.



3 Using Styles

As you select other items, the format panel changes to offer appropriate options. There are also paragraph styles for all templates. Change the subheading and choose Caption from the Paragraph Style pop-up. Now select it and resize using the same method as in step 2.



4 Fine-tuning text

After applying a style, you can customise any text by highlighting it and then using the format panel's controls for font family, weight, formatting, alignment and so on. You can also use the Line Spacing and Paragraph Spacing sliders to add space between blocks of text.



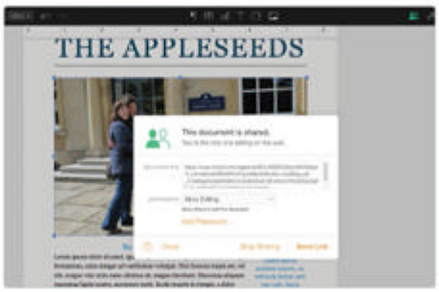
5 Add your own images

Next you'll want to replace the template images with your own. It's not obvious how you do this – there's no Update Image button. The easiest method is to open a Finder window containing your image, then drag and drop it onto the image you want to replace.



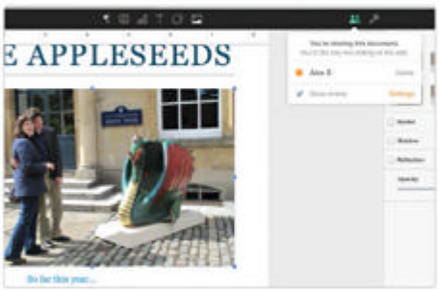
6 Adjust images

Click and drag a page element to move it; drag its corner handles to resize it. Double-click an image to crop and zoom it. Add effects like a border or shadow from the format panel. To add extra images, click the Image button in the toolbar at the top, then Choose Image.



7 Share your document

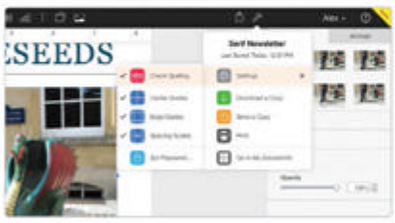
Want others to work with you? Click the Share button, then Share Document. (The first time you do this you'll get an alert that anyone with the link can edit the document.) You can email the link directly via your iCloud email account or copy it to share it in other ways.



8 Work with others

The Share button changes to verify that the document is being shared. Anyone you send the link to will be able to open the document and edit it online, or you can set it to read-only. Click the Share button again, then Settings to do this, share with more people, or stop sharing.

SHARE IN OTHER WAYS



Remember that the Share button is really for collaborative working. If you just want to send your document to someone, click the Tools (spanner) icon and select Send a Copy to email it in a choice of formats, or Download a Copy to save it where you like.

Numbers for iCloud

Create powerful spreadsheets with Apple's web-based Numbers app

SKILL LEVEL
Anyone can do it

IT WILL TAKE
50 minutes

YOU'LL NEED
Compatible web browser, internet connection, Apple ID

Creating spreadsheets might be considered less glamorous than creating posters, flyers or presentations, but that's not necessarily true if you're using Apple's Numbers app: it is not only incredibly powerful but is also capable of creating stunning-looking documents, and it's every bit as much fun to use as the other iWork apps.

The web app version, Numbers for iCloud, offers a full spreadsheet experience complete with all the different sheets, formulas and templates you get in the desktop version, though a few features are not yet supported in the web app. Like the other iCloud apps, it's fully compatible with both the OS X and iOS versions of Numbers (and anything you can't actually edit within the web app is nevertheless preserved, so you can edit it by opening the document on your Mac or iOS device).

Templates

The web app offers some attractive and useful templates to help you get started. As well as the business and personal finance templates that you'll often find in spreadsheet apps, there's a wide range of hobby and home improvement options: travel itineraries, party planners and baby records.

There's also a good range of education templates, making Numbers a great tool for students and teachers. In fact Numbers is handy for keeping track of all kinds of things, so here we'll create a spreadsheet in Numbers for iCloud to keep track of our daily runs.

QUICK LOOK
NUMBERS WEB APP

Sheets

1 Numbers for iCloud supports multiple sheets in a single document; click + to create a new one.

Tables & cells

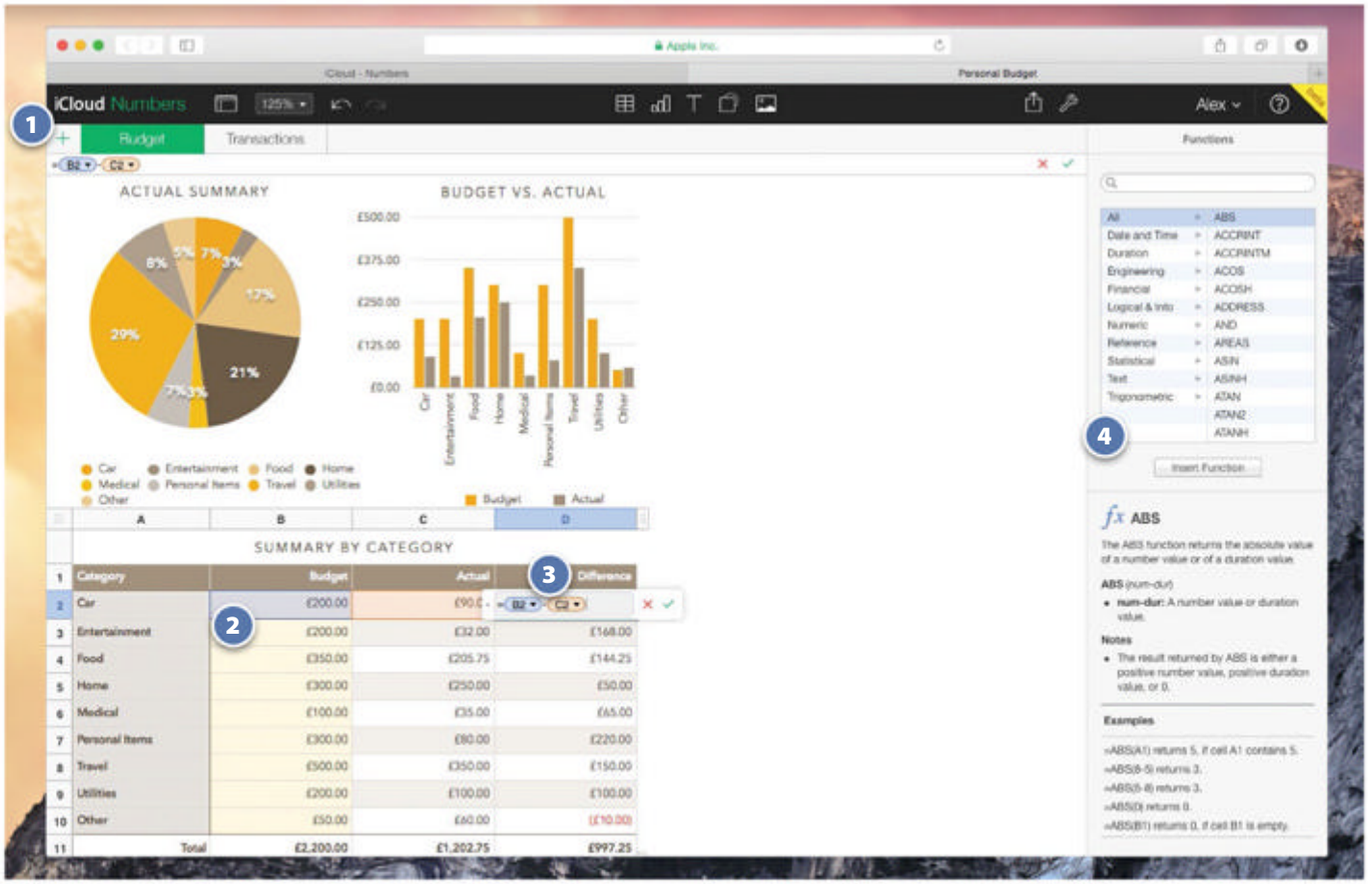
2 Data is contained in tables of cells organised in rows (horizontal) and columns (vertical). To select a cell, click on it.

Editing cells

3 Double-click a cell to edit its contents. You can edit the data in a cell by typing directly into it or the text bar under the list of sheet names.

Format panel

4 The format panel sits at the right of the app and displays options relevant to whatever is currently selected. We are looking at a cell containing a function (a calculation based on other cells), so the panel is showing the Function Browser.

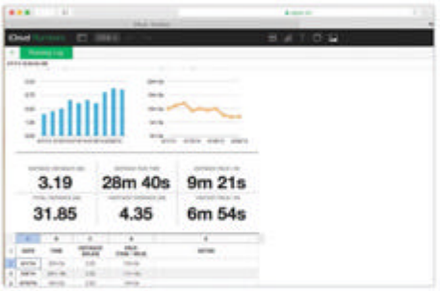


HOW TO | GET STARTED WITH NUMBERS FOR iCLOUD



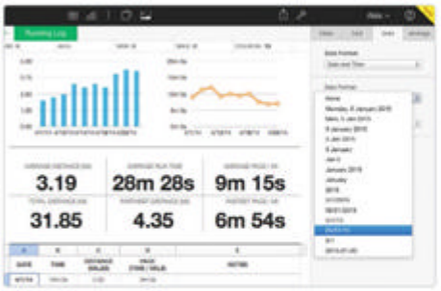
1 Create new document

Log in at icloud.com, click the Numbers web app and click Create Spreadsheet to open the template picker. Each template has a range of sheets, tables and charts to experiment with. Here we'll look at the Running Log spreadsheet, which creates charts from your exercise sessions.



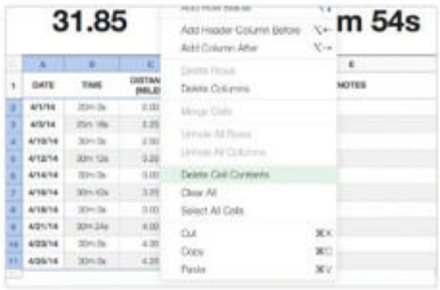
2 Check the cells

If you haven't used a template before it's usually a good idea to get a feel for which cells contain data and which contain functions (calculations that manipulate the data). Double-click on a cell; if it contains a function, it will be displayed in a floating toolbar above the cell.



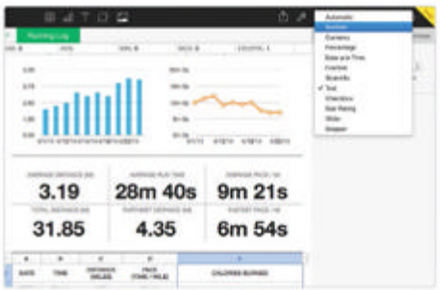
3 Edit and format data

To update the data in a cell, double-click it, delete the placeholder data and enter your own. You can also edit the headers (Date, Time and so on) and Chart Titles. To change the date format from the default US style, click a cell with a date in it, then the format panel's Data tab.



4 Clear placeholder data

Once you know which cells to edit, it's a good idea to clear out the placeholder data so you can enter your own. Click and drag across a range of cells to select them, then right-click and use Delete Cell Contents. This leaves the table structure, formats and references intact.



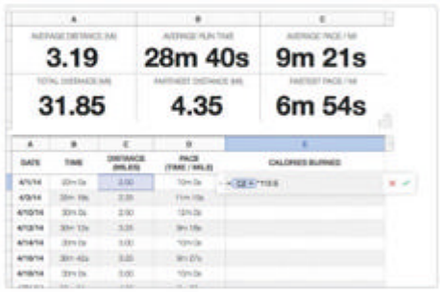
5 Change a column

You can change the nature of a cell or of an entire column. Let's change Notes to Calories Burned. Double-click Notes and change its text to Calories Burned; click column E's heading to select all its cells. Now click the format panel's Data tab and change Data Format to Number.



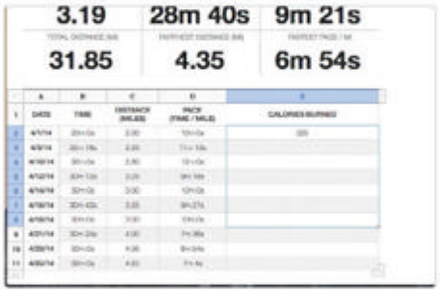
ADD CHARTS

One handy feature recently added to Numbers for iCloud is the ability to create charts from tables. Select the range of cells containing the data you want to chart, then click the second icon in the group of five in the middle of the toolbar and choose the type of chart you want.



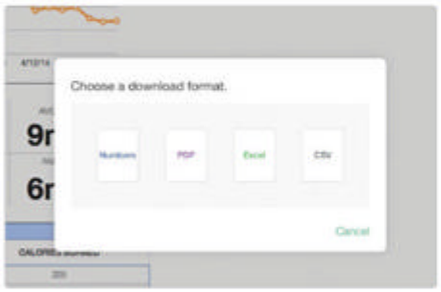
6 Create formula

Rather than enter calories manually, we'll create a formula for the Calories Burned column by multiplying the miles run by 112.5 (average for a one-mile run). Click on the E2 cell and type = to bring up the formula editor. Click cell C2, type *112.5, then click the green tick.



7 Copy functions

Now we'll copy the function from cell E2 down to the cells below. Click on E2 and look for the small white circle in the bottom right of the cell. Click and drag this down to copy the function in E2 to the cells below. Drag to cover all of the cells that you want.



8 Download a copy

Your work is saved as you go; you can close the tab and access it later on a computer or iOS device. Want to take it into another app, such as Excel? Click the Tools (spanner) icon, select Download a Copy, then click Excel and a copy will be saved into your Downloads folder.

Using Keynote for iCloud

Create presentations and show them anywhere with this web app

SKILL LEVEL
Anyone can do it

IT WILL TAKE
45 minutes

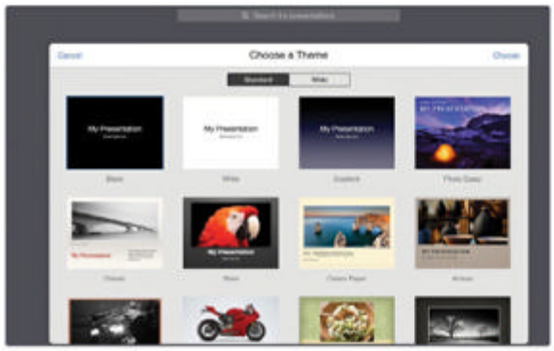
YOU'LL NEED
Compatible web browser, internet connection, Apple ID

Apple's Keynote web app enables you to build, edit and display presentations within your web browser (provided you're using the latest version of Safari on the Mac, Internet Explorer in Windows, or Google Chrome on either platform). It can be used alongside Keynote for OS X or iOS, or even on its own to build presentations on the web.

Keynote for iCloud is very nearly as powerful as the desktop app, and enables you to combine text, images and shapes to build slides that you can move between with slick transitions. And since your presentations are all saved in iCloud, you can show them off anywhere, from within your browser. At present, however, there are some features not supported in the web app, notably presenter notes and build effects. But as in the case of the other iWork web apps, any unsupported features are preserved in the document, and can be edited again if you reopen the document in the OS X or iOS app.

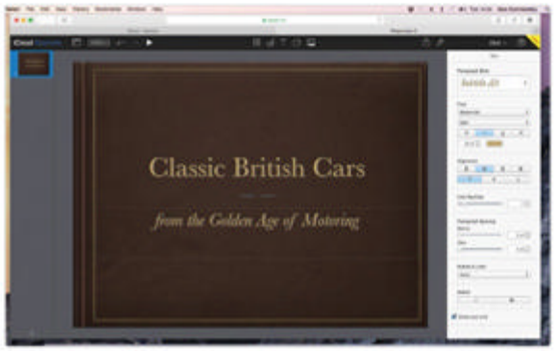
In this tutorial we'll look at building a presentation with text and images, then adding transitions and previewing the presentation, all within your browser.

HOW TO | BUILD A PRESENTATION IN KEYNOTE FOR iCLOUD



1 Pick a template

Log in at icloud.com, and launch the Keynote web app. Click Create Presentation in the Document Manager and pick a template – you can choose between Wide (16:9 aspect ratio) or Standard (4:3) formats to suit the display you plan to use. Select a template and click Choose to get started.



2 Editing text

You'll see the first slide in your presentation, with two areas marked 'Double-click to edit'. Double-click each part to highlight the text and replace it with your own. Notice that the format panel on the right changes to display appropriate options such as font family and weight, size and alignment.



3 Adding slides

To add a second slide, click the + icon at the bottom-left of the app. Each template has 12 different slide styles to choose from, each containing a different layout of words and images. Click one of the previews and a new slide will be added to the slide navigator at the left of the window.

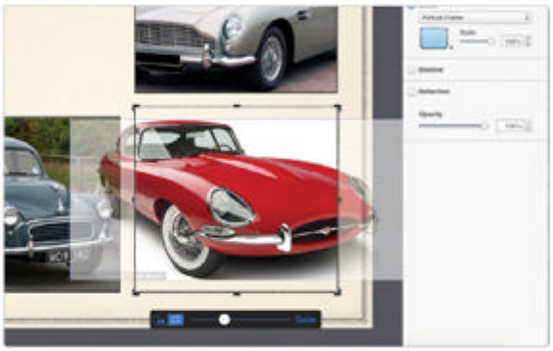


4 Insert your images

Most slides include placeholder images. The easiest way to replace a placeholder is to drag an image file directly from a Finder window onto the image you want to replace. The format panel then changes to display image options such as borders, shadows and reflections.

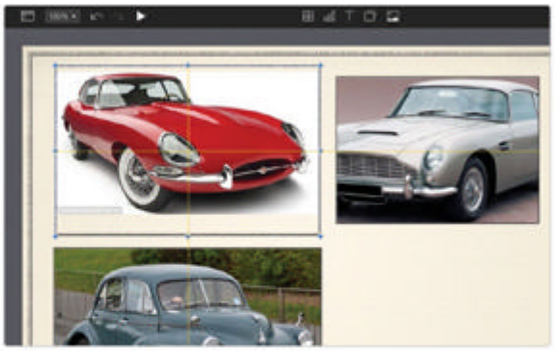
STACKING ORDER

When a slide contains multiple overlapping images or shapes, you might want to change the order in which they are placed on top of each other. To do this, select an object, then click Arrange in the format panel and use the Forward/Backward buttons. You can also tap Back and Front to send an object behind all others or bring it right to the front.



5 Mask and crop images

Double-click an image to bring up the mask options. In this mode you can drag the slider beneath the image to zoom in or out, and drag the image to move it within the frame. Click Crop at the bottom and you can reshape the frame by dragging its black handles. Click Done when happy.

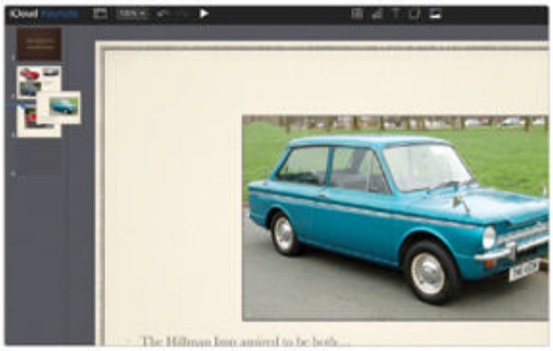


6 Repositioning items

You can reposition text boxes and images by clicking and dragging to move them. As you move objects, yellow guidelines appear to help you to align things, but an object will also 'snap' to align with another object on the slide. Drag the blue handles on the corners of objects to resize them.

ADDING SHAPES

You can use shapes to add emphasis to a slide. The most commonly used shape is an arrow, but you can also add squares, circles, speech bubbles and other shapes. Add shapes to a slide by clicking on the Shapes button in the toolbar at the top of the app.



7 Arranging slides

You can drag slides up and down the slide navigator to change their order. You can also drag slides on top of each other and then slightly to the right to create slide groups, and use the triangle at the left to hide or reveal those slides. This is useful for larger presentations with many sections.



8 Add Transitions

You can add a bit of style to your presentation with transition effects. Click a slide in the slide navigator, then click the Transition Effect drop-down menu in the format panel. Choosing an effect often reveals extra options such as its direction and duration. Click Play to preview the transition.

View the presentation

Click the first slide in the Slide Navigator, then click Play to view your presentation. It is displayed fullscreen, and you can advance to the next slide by tapping the ▶ or ▼ key; press ⇧+▼ to advance without any transition effects. Press ◀ or ▲ to move back. You can also skip to a slide by typing its number on the keyboard and hitting ↵. When the presentation is finished you'll return to the Keynote editing interface. You can also press esc at any time to exit the preview and return to the editing window.

You can't add build effects in the web app, but with a little ingenuity you can emulate one: right-click a slide in the Navigator, duplicate it, then change or move elements on the copy. Add a Dissolve transition between the two slides, and the changed items will fade in as shown.



Collaborate in the cloud

Work together with other people using iWork for iCloud

SKILL LEVEL
Anyone can do it

IT WILL TAKE
10 minutes

YOU'LL NEED
Compatible web browser, internet connection

One of the best features in iWork for iCloud is collaboration. In most situations, 'sharing' a document means sending a copy to someone or allowing others to view it on a website or in a shared folder. In iWork for iCloud, it's also possible to have other people edit the same document at the same time in their web browser.

You enable this simply by sharing a link to the document. Everyone who uses that link in a compatible browser (the latest version of Safari on the Mac, Internet Explorer in Windows, or Chrome on either) can make changes and see the changes being made by others in real time.

This has both huge advantages and some risks. Changes are saved instantly, so everyone is always working on the latest version of the document and nobody can get out of sync. However, everyone's changes are equal – the 'owner' of the document (the person who created it and shared it in the first place) has no special privileges, except for an option to stop sharing at any time, and anybody who gets hold of the link will be able to edit the document. The owner can make it read-only, but then *nobody* else can edit it – the setting is all or nothing. Also, there is currently no versioning built-in, so although everyone can undo and redo their own changes, there's no simple way to revert to a past state of the file. (For this reason, it may be wise to make a copy of the original as a backup before you begin sharing.) Apple has, however, promised version control in a future update. Let's look at working with others…

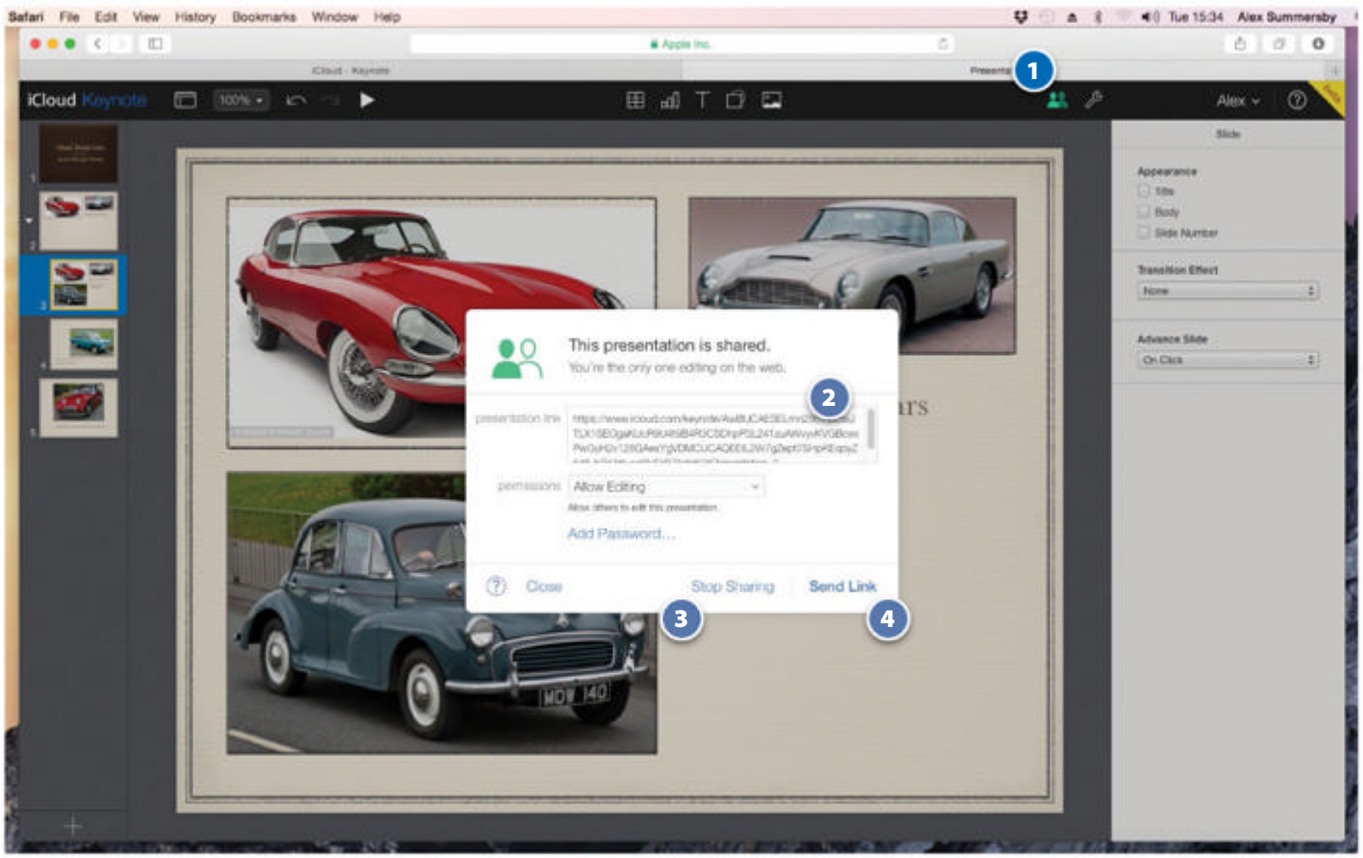
QUICK LOOK
iWORK SHARING

Share
1 To share an iWork document, click the Share icon to create a link. If you're already sharing it, click the icon and then Settings to get the dialogue shown.

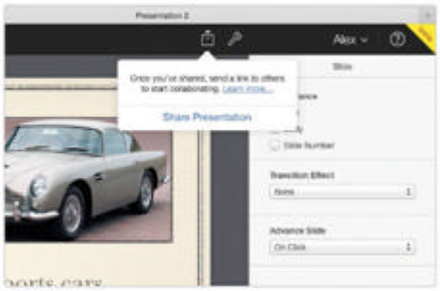
Sharing link
2 To collaborate on a document, share its unique link. Anyone who has the link can edit the document, whether they have an Apple ID or not, if they have a compatible browser.

Stop sharing
3 The owner of the document (its creator) can stop sharing at any time by clicking this button. Doing this will stop other people from opening or editing the document.

Email link
4 You can email the link to more people using iCloud Mail. Alternatively, copy the link and share it via social networks or any other method you like.

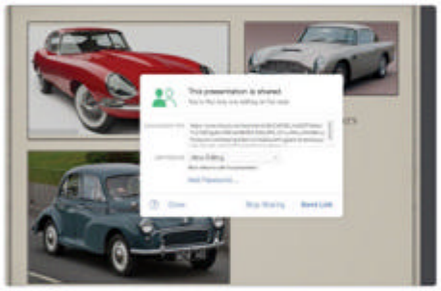


HOW TO | COLLABORATE USING iWORK FOR iCLOUD



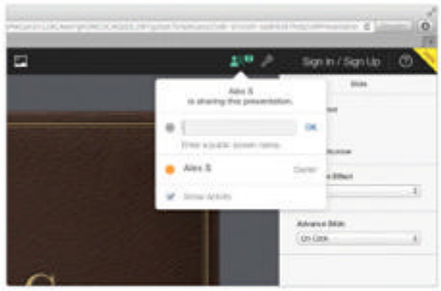
1 Share presentation

Open a document in any of the iWork web apps – the process is the same in all three, and people won't need the app or even an Apple ID, just a compatible browser. To begin sharing it, click the Share button at the top-right, then the option to share the document.



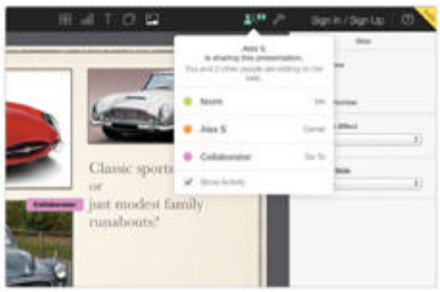
2 Shared link

If this is the first time you're sharing, you'll get an alert. Click Continue and a unique link is generated. Simply send this to anyone you want to be able to work on the document: right-click on the link to copy it, or just click the Send Link button to email it using iCloud Mail.



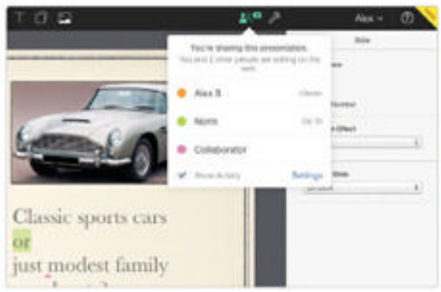
3 Working together

Recipients can then simply click the link to access the document online. They don't need an Apple ID or any particular apps installed, just an up-to-date browser. They'll first be invited to enter a screen name, but if they click OK without doing so they'll be listed simply as 'Collaborator'.



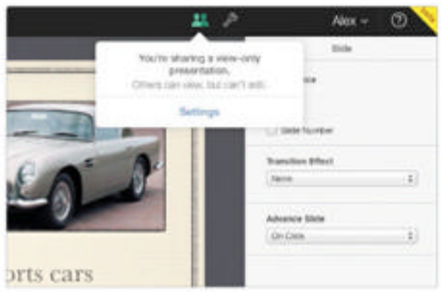
4 Who is working

As owner, you can share with as many people as you like, and resend the link to more at any time. Anyone working on the document can see who else has access to it by clicking the Share button. Any changes they make will instantly be visible to you and vice versa.



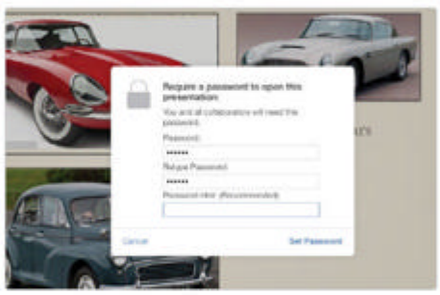
5 Identifying changes

Each person working on the document is assigned a different-coloured cursor, and objects they select will be highlighted in that colour. See which colour is which person's by clicking the Share button; click a person's name to see where they're currently working.



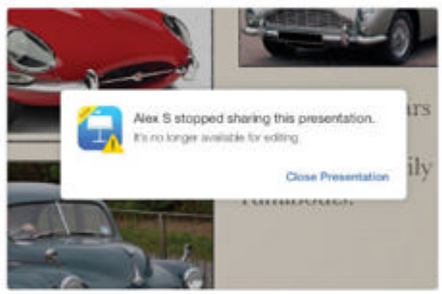
6 Who's the Owner?

Note that only the owner – the creator of the document – has access to Settings (compare the images for steps 4 and 5). Click 'permissions' in the Settings dialogue to make the document View Only, which means others can view, print and download it but not edit it.



7 Password-protect

Click Add Password to password-protect the document. Note that this applies whether the document is editable or read-only. If you set a password, nobody – *not even you* – will be able to open the document without it, so do add a password hint to jog your memory!



8 Stop sharing

If you're the owner of the document, you can stop sharing it when you've all finished working on it – or at any other time you like. Click the Share button, then Settings, then Stop Sharing. If any of your collaborators still have the sharing link open, they will see this pop-up alert.



DON'T WANT TO SHARE?

Owners can stop sharing altogether but not remove particular collaborators. You can view a list of documents shared with you in each app's Document Manager – click the middle icon at the top – and stop sharing one by clicking the X next to it.

Use iCloud with Windows

Sync data between your iOS devices, Mac and Windows PC

SKILL LEVEL
Anyone can do it

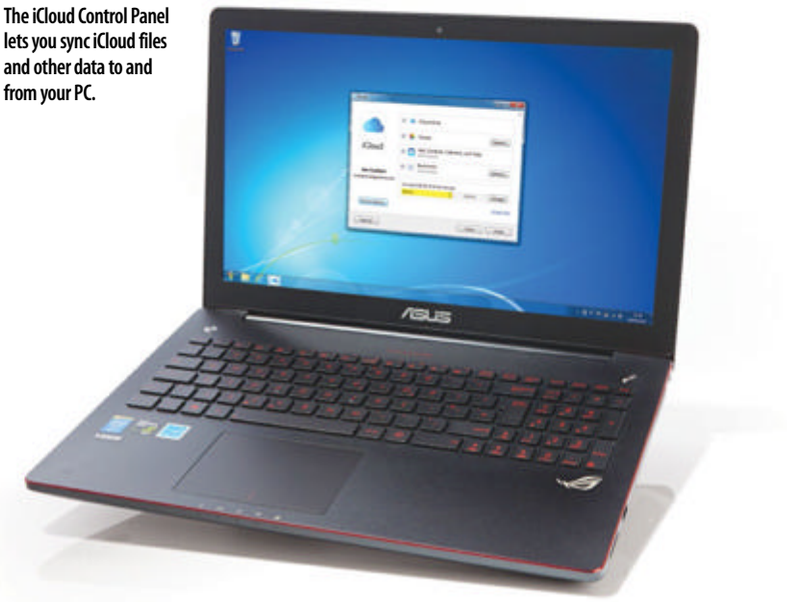
IT WILL TAKE
15 minutes

YOU'LL NEED
Windows PC running Windows 7 or newer, Outlook 2007 or newer for email

You don't need to be a Mac user to use iCloud. While Apple has obviously concentrated on ensuring that the iPad, iPhone and Mac all work smoothly together, it hasn't locked out those who own a Windows PC. Not only can you access iCloud apps through your web browser, and access certain other features such as enabling Wi-Fi sync for your iOS device in iTunes, Apple provides an iCloud Control Panel for your PC too.

While the iCloud Control Panel doesn't offer the same comprehensive level of coverage as its Mac counterpart, it does enable you to keep your iCloud-stored mail, contacts, calendars and tasks in sync with Microsoft Outlook and your Safari bookmarks in sync with Internet Explorer, Chrome or Firefox.

It also allows you to set up Photo Stream on your PC, so any photos taken on your iOS devices automatically sync across to your computer for backup and use in Windows applications. Last but not least, the iCloud Control Panel lets you see and manage how much space you've got in your iCloud account, and purchase more if necessary.



The iCloud Control Panel lets you sync iCloud files and other data to and from your PC.

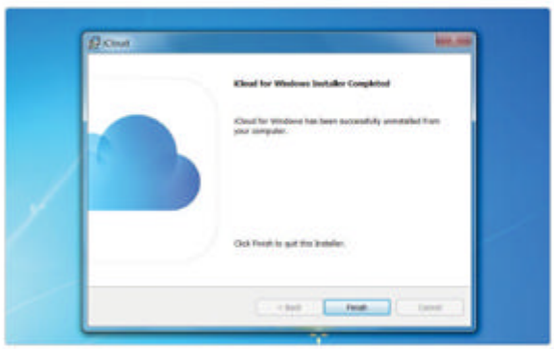
iCloud Control Panel keeps your iCloud-stored mail, contacts, calendars and tasks in sync with your PC

In this tutorial we'll reveal how to set up iCloud on your PC and take you on a tour of its various functions, revealing what steps you need to follow in order to keep aspects of your iCloud account in sync with your computer. We'll also show you how to access iCloud through your PC's web browser.

HOW TO | SET UP AND USE iCLOUD IN WINDOWS

QUICK TIP

Need to tweak iCloud settings? If you're running Windows 7, type 'iCloud' into the Start menu's Search box to locate it; Windows 8 users should press the Windows key and X, choose Control Panel, then search for iCloud.



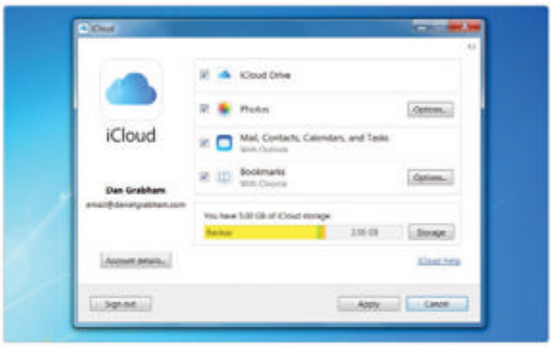
1 Set up and install

If you've not yet set up an iCloud account, you'll need to do so from a Mac running OS X 10.7.5 (Lion) or newer, or from an iPad, iPhone or iPod touch running iOS 5.0 or newer. Once done, download and install the iCloud Control Panel for Windows from support.apple.com/kb/dl1455.



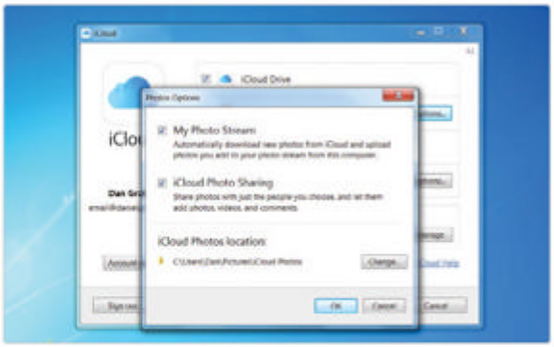
2 Sign in

Reboot your PC when prompted; iCloud will automatically start with Windows. Click Automatically Send when prompted to improve bug fixing, then log into iCloud with your Apple ID and password. After clicking Sign In, you should find yourself at the iCloud Control Panel proper.



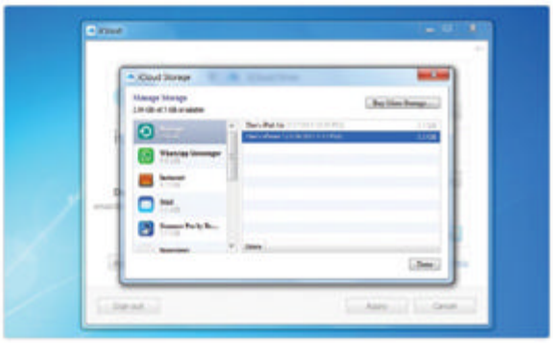
3 Review sync options

iCloud will automatically sync mail, contacts, calendars and tasks with Outlook, and bookmarks with your default browser (or Internet Explorer if not supported). Photos will be synced to a dedicated iCloud Photos folder in your personal Pictures folder. Untick any options you don't need.



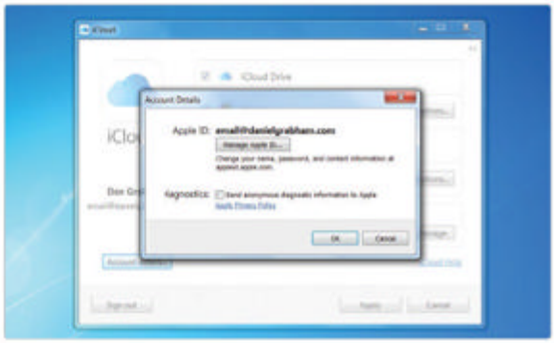
4 Tweak sync settings

Click Options next to Bookmarks to choose a different web browser to sync bookmarks with: Firefox, Chrome and Internet Explorer are supported. Click Options next to Photos to switch Photo Stream on or off; select sharing settings and choose a different location to store iCloud photos if required.



5 Review storage

A bar chart shows how much space you have left in your iCloud account. Click the Storage button next to it. This is similar to the Manage Storage option on iOS. Once again, you can select anything stored in iCloud, such as a backup or some app-specific data, and delete it to free up space.



6 Job done

After making changes, click Apply. You can remove the iCloud icon from the taskbar's notification area (untick 'Show iCloud status in System Tray') and manage the account online (click Account Details followed by Manage Apple ID). Click Sign Out to switch to another ID, or Close to finish.



7 Access iCloud via a browser

You can access iCloud apps online through your PC's web browser via icloud.com, enabling you to view and manage contacts, mail and other personal info online once signed in. The web apps of Pages, Numbers and Keynote enable you to create, edit and view documents even on a PC.



8 Edit documents with iCloud

To do this, simply open the web app in question in your browser and run through the setup wizard; you'll need to set up iCloud Drive if you haven't already enabled it using your iOS device or a Mac. Then just double-click one of your documents to open and edit it within your web browser.

WI-FI SYNC



Connect your iOS device to your PC and open iTunes. Next, click the device icon near iTunes' top-left corner. Click Summary, scroll down to Options, tick the 'Sync with this iPad/iPhone over Wi-Fi' option and then click Apply.

JARGON BUSTER

iWork

iWork is Apple's office suite: Pages for word processing and page layouts, Numbers for spreadsheets, and Keynote for presentations. Mac and iOS apps exist, but PC users must create, edit and view documents at icloud.com. The version on iCloud is a beta, so is still in development.

iCloud and Apple TV tips

Make the most of iCloud and Apple's little black box…

As all cloud services should be, using iCloud is mostly seamless and obvious – things just happen in the background, without you having to get involved. However, that's not to say it doesn't have some useful hidden abilities that are worth exploring, even if you don't need them every day. Here, we look at some handy things to know about iCloud, but also reveal at how you can use your devices with the Apple TV, Apple's little set-top box that not only ties into your iTunes in the Cloud purchases (and lets you make more), but can also be used as a way to display pictures, movies and more on your HDTV from your Mac or iOS device without plugging in any awkward cables.



The deceptively small Apple TV is packed with potential.

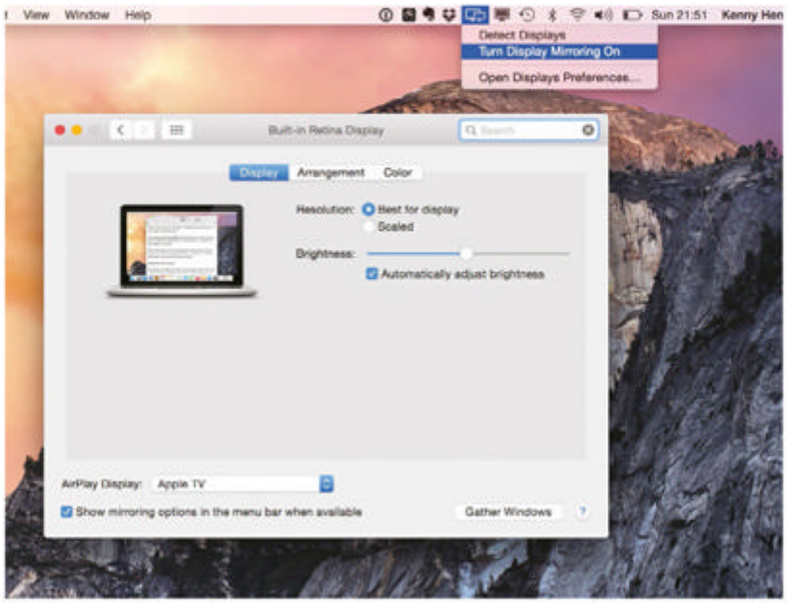
Re-download purchases

One of the clever things about tying everything to your Apple ID is that your various devices always know your purchase history. On your Mac, open iTunes and sign in to the Store, then click Purchased in the Quick Links at the right-hand side of the window. You'll see a list of everything you've ever bought using that Apple ID (or optionally only the items that are not in your library), and this can be searched or filtered by music, films, TV shows, apps or books. The handy thing is that any of these previous purchases can be downloaded again for free, even if you've deleted them from your Mac. You can also access the same purchase history on an iOS device by opening the iTunes Store app and tapping More > Purchased at the foot of the screen. You can download previous purchases on up to 10 devices and computers, though you can authorise only five at a time with the same Apple ID.

Automatic downloads

Remember that as well as accessing and downloading past purchases piecemeal, you can set iTunes on your Mac to automatically download content purchased on other devices using the same Apple ID. Open iTunes' Preferences, click the Store tab and you can enable automatic download for music, movies, TV shows, apps or any combination of these. This means you can buy an album from iTunes while you're out, then come home and find that it will have downloaded to your Mac automatically. Conversely you can activate the same option on your iOS device, so that a movie you buy on your Mac for example is also available on your iPad. Do keep an eye on free space on your iOS device, though – songs or even complete albums won't take up much room, but HD movies can be hefty files; remember that your Mac has much more space on its hard drive than an iOS device.

You can mirror what's shown on your Mac to your Apple TV.



Show iCloud items

Even if you opt not to download all purchases automatically, everything is still available to you. In iTunes' Preferences, under the Store tab, you can tick the box to 'Show iTunes in the Cloud purchases'. Now iTunes will display songs you've bought on other devices but haven't downloaded to this computer – they're the ones with a cloud symbol next to them. In Albums view, the album artwork has a cloud symbol in the corner. Assuming you have an internet connection, you can treat these items just the same as those you have local copies of; if you double-click to play one, it will start streaming while it's downloaded. If the next item in the track list or playlist is also in the cloud, this in turn will download when it starts playing, and so on – so keep an eye on any data download limits you may be subject to. You can opt to hide iCloud items at any time, and undownloaded items simply won't be displayed.

Access your Mac remotely

Back to My Mac is a part of iCloud that enables you to access files, share a screen and control another Mac remotely. It works with Macs on the same network and over the internet. To set it up, go to System Preferences, then iCloud on your main Mac. Tick the box next to Back to My Mac, then click Details (or More in older versions of OS X). Click the button that says Open Sharing and click the boxes next to File Sharing and Screen Sharing. To use Back to My Mac over the internet, you'll need to set up UPnP on your router. How you do this depends on your router; you'd usually type the IP address of its

HOW TO | DISPLAY YOUR iPAD PHOTOS ON YOUR HDTV VIA APPLE TV



1 Switch on AirPlay

First ensure that AirPlay is turned on in your Apple TV. Go to Settings > AirPlay and set AirPlay to On. You should also turn on Home Sharing in the Computers section, but AirPlay is all that's needed to actually display photos from an iPad to a TV.



2 Open Photos

Open the Photos app and pick a shot from your Library. It doesn't matter if the photo is from Photos, Shared or Albums. Tap the photo once to bring up the on-screen controls and you should see the Share icon in the bottom left. Tap AirPlay, then choose your Apple TV as the target.



3 Stream the photo

The photo should now appear on your television screen through the Apple TV. Swipe left and right on photos on the iPad to navigate between different images, but if you go back to the Photos library view, AirPlay will stop and you'll have to switch it on again.



4 Prepare a slideshow

You can also start a slideshow of images that will play automatically. This works best with Albums, but alternatively, you can do a slideshow of all photographs. To begin with, open the picture that you want the slideshow to start on, and then tap the Share icon.



5 Set slideshow options

Tap the Slideshow button to bring up the Slideshow Options menu. Choose your Apple TV from the top of the list of options. You can also choose a different effect by tapping Transitions. There is a much greater range of transitions available when streaming to the Apple TV.



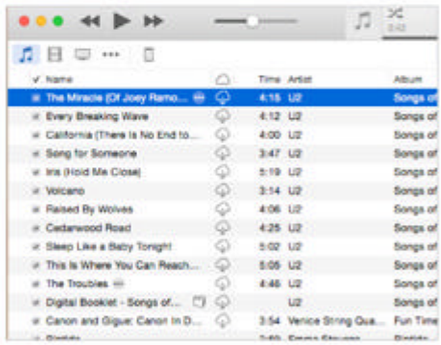
6 Start the show

You can also choose to play a track from the Music app as your slideshow's soundtrack. Tap Play Music and then tap Music to pick something from your music collection. Tap Start Slideshow; your iPad's screen will show the above message while the show plays on the TV.

homepage into Safari's address bar, log in and then allow UPnP from its settings page. To access another Mac on the same network, repeat the steps above on that Mac. Now when you open a Finder window, you'll see that Mac listed under Devices. Click on it and (after a short delay) you'll be able to access its filesystem and open files on the remote Mac or copy them to your Mac. Click Share Screen and a window will open, showing you that Mac's screen and allowing you to control it from wherever you happen to be.

Mirror your Mac's audio/video output

We've seen how to play music or movies from your Mac on your TV via an Apple TV. If you have an Apple TV and a Mac running OS X 10.8 Mountain Lion or newer, you can also view the Mac's screen and listen to its audio on the TV connected to the Apple TV. First, make sure the Mac and Apple TV are on the same Wi-Fi network. On the Mac, go to System Preferences > Displays. Click on the AirPlay Display menu at the bottom of the Display tab and select your Apple TV. Tick the 'Show mirroring...' box. In the menu bar item, select Turn Display Mirroring On.



You can view items stored in the cloud that you haven't yet downloaded.

View your photos on Apple TV

Once you've enabled Home Sharing in iTunes from the File menu, you can also display all your photos from your Mac on the Apple TV. Go to File > Home Sharing > Choose Photos to Share with Apple TV… and you'll then be able to pick whether you want to share your Photos collection or photos stored in a folder on your hard drive, or even videos. It's worth creating some albums specifically for the Apple TV to use, so that only the best (or perhaps the least embarrassing) show up.

Technology Tips Guide

iTUNES & iCLOUD

547 TIPS FOR MASTERING APPLE'S MEDIA APP AND CLOUD SERVICE

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